grass valley

T2 Elite/Pro/Express

INTELLIGENT DIGITAL DISK RECORDER

User Manual

www.grassvalley.com

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- If there are any variations between the explanation in this manual and the actual application method, priority is given to the actual application method.
- This manual is a common manual for T2 Elite, T2 Pro and T2 Express. Screenshots and illustrations in this manual may vary from those of the actual product.
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T2 Elite/Pro/Express User Manual
Ver 2.1
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Section 1

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Section 2

Overview

Overview

T2 is multi-channel video disk recorder that allows simultaneous video recording and playing and has 1 input and 2 output channels. Video and audio data are saved in the built-in data drive.
T2 has pre-installed software that performs recording/editing/playing of video and creating or playing of playlists. The following two operation modes are available depending on the environment.

➢ Front panel mode

You can operate this mode by tapping the display on the touch screen LCD on the T2 front panel. The operation is available under minimum network environment.
The basic operations can be performed only on the front panel mode.

➢ Workstation mode

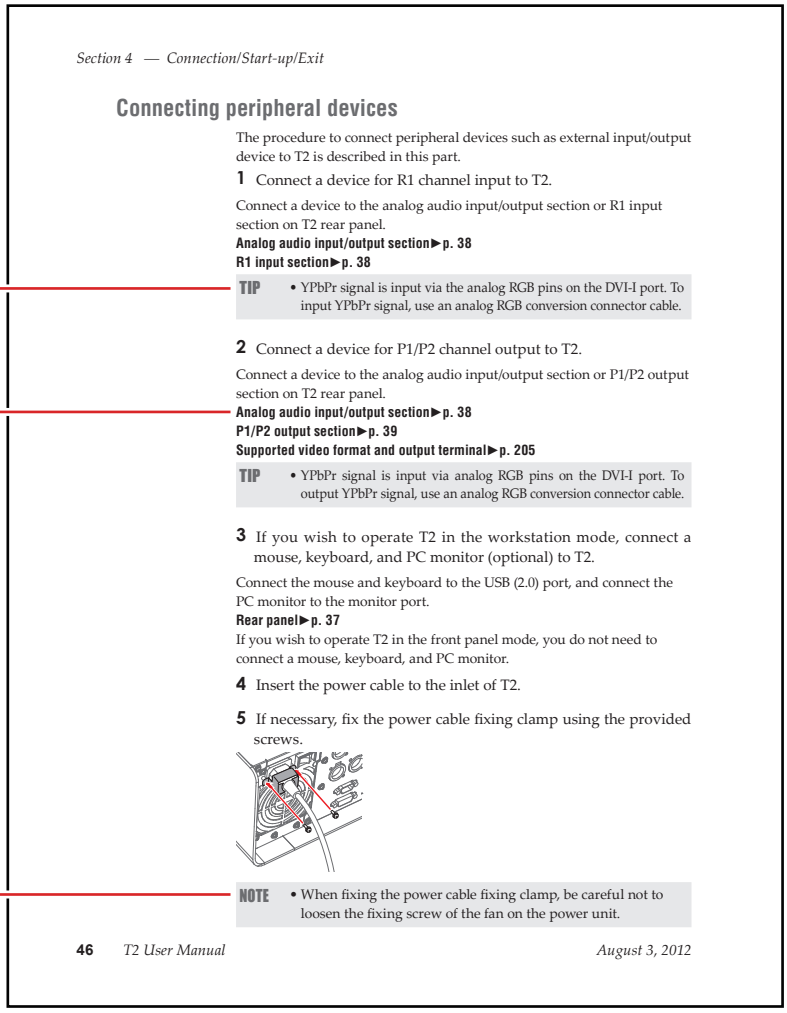
You can connect and use a PC monitor, mouse, and keyboard to T2 in this mode.
All functions are available in this mode.
Operations in Workstation Mode►P122

The operating instructions on this manual describe procedures in the front panel mode.

For the changed specifications from T2 BASIC/T2 RAID/T2 SSD, and the added and changed functions by the service pack, see our web site.

About this manual

The indications and the meanings are as follows.



Section 4 — Connection/Start-up/Exit

Connecting peripheral devices

The procedure to connect peripheral devices such as external input/output device to T2 is described in this part.

1 Connect a device for R1 channel input to T2.

Connect a device to the analog audio input/output section or R1 input section on T2 rear panel.

Analog audio input/output section►p. 38
R1 input section►p. 38

TIP • YPbPr signal is input via the analog RGB pins on the DVI-I port. To input YPbPr signal, use an analog RGB conversion connector cable.

2 Connect a device for P1/P2 channel output to T2.

Connect a device to the analog audio input/output section or P1/P2 output section on T2 rear panel.

Analog audio input/output section►p. 38
P1/P2 output section►p. 39
Supported video format and output terminal►p. 205

TIP • YPbPr signal is input via analog RGB pins on the DVI-I port. To output YPbPr signal, use an analog RGB conversion connector cable.

3 If you wish to operate T2 in the workstation mode, connect a mouse, keyboard, and PC monitor (optional) to T2.

Connect the mouse and keyboard to the USB (2.0) port, and connect the PC monitor to the monitor port.

Rear panel►p. 37

If you wish to operate T2 in the front panel mode, you do not need to connect a mouse, keyboard, and PC monitor.

4 Insert the power cable to the inlet of T2.

5 If necessary, fix the power cable fixing clamp using the provided screws.

NOTE • When fixing the power cable fixing clamp, be careful not to loosen the fixing screw of the fan on the power unit.

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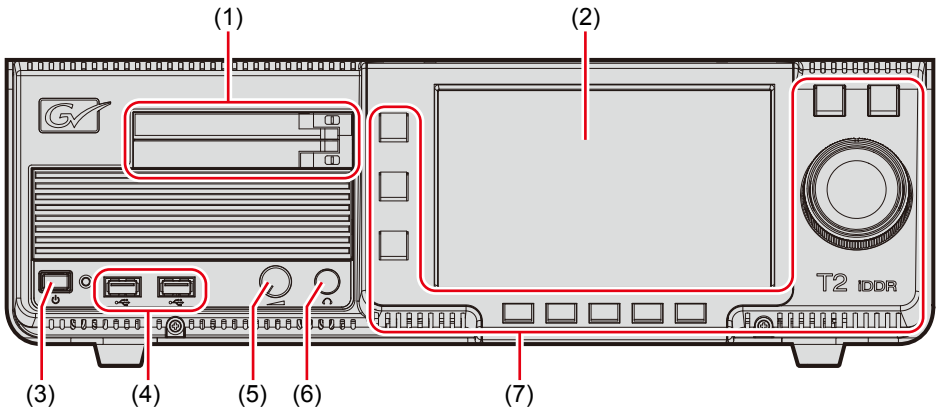
*The illustration on this page is only for explanation purpose. It differs from the actual page on this manual.

(1)	**TIP**	Describes important points for operations.
(2)	**Reference page**	Indicates related pages.
(3)	**NOTE**	Describes cautions and restrictions for operations.

Section 3

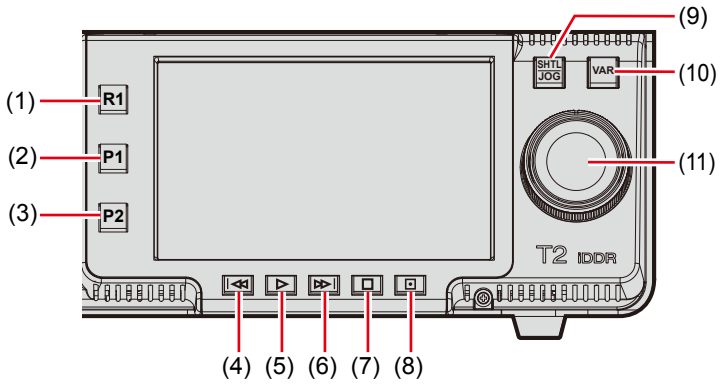
Part Names and Functions

Front panel



(1)	**SSD drive bay**	Works as an SSD drive bay.
(2)	**Touch screen LCD**	Operates T2 by tapping the display on the screen.
(3)	**Power switch**	Turns on T2.
(4)	**USB (2.0) ports**	Used to connect USB removable devices.
(5)	**Volume control**	Used to adjust the headphone volume.
(6)	**Headphone jack**	Used to connect a headphone. **Audio level detail display (R1 channel)►P136** **Audio level detail display (P1/P2 channel)►P137**
(7)	**Control buttons**	Performs channel selection or playing back and recording of video. **Control buttons►P35**

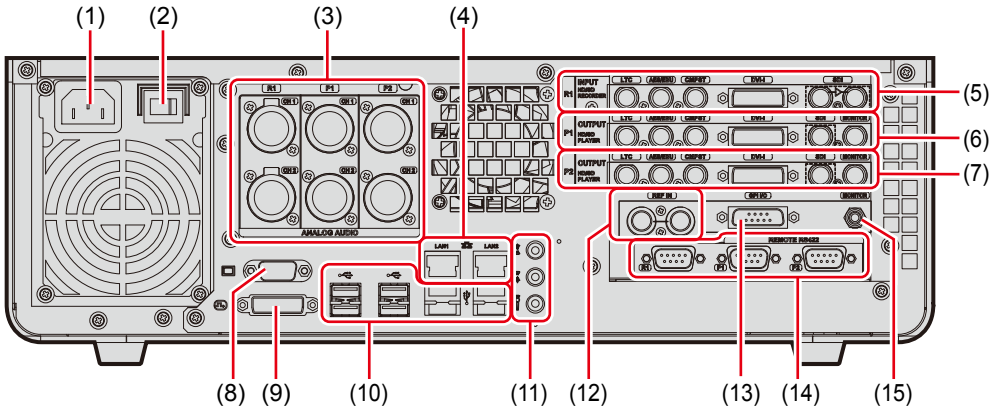
Control buttons



(1)	**[R1] button**	Switches to 1ch view of the R1 channel. Makes the R1 channel active.
(2)	**[P1] button**	Switches to the 1ch view of P1 channel. Makes the P1 channel active.
(3)	**[P2] button**	Switches to the 1ch view of P2 channel. Makes the P2 channel active.
(4)	**[Rew] button**	By every press, moves back frame by frame. Holding on the button will rewind by 32 times speed.
(5)	**[Play] button**	Starts playback.
(6)	**[FF] button**	By every press, moves forward frame by frame. Holding on the button will fast-forward by 32 times speed.
(7)	**[Stop] button**	Stops playback or recording.
(8)	**[Rec] button**	Starts recording.
(9)	**[SHTL/JOG] button**	Switches to the jog/shuttle mode. **Playing back in jog/shuttle mode►P100**
(10)	**[VAR] button**	Switches to the variable speed mode. Displays the speed controller and allows to change the playback speed. **Playing back in variable speed mode (variable playback)►P99**
(11)	**Jog/Shuttle**	When the [SHTL/JOG] button is on, executes jog/shuttle playback operations. When the [VAR] button is on, executes variable speed playback.

[Rew] + [Stop] buttons	While playing a clip, moves to the previous In/Out point or to the top of the clip. While playing a playlist, moves to the previous event.
[FF] + [Stop] buttons	While playing a clip, moves to the previous In/Out point or to the end of the clip. While playing a playlist, moves to the next event.

Rear panel



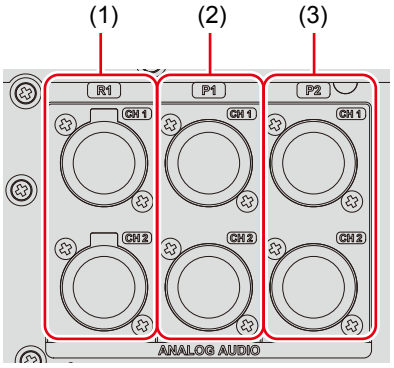
(1)	**AC Power inlet (3-pin)**	Used to connect to the AC power outlet with the supplied power cable.
(2)	**Main power switch**	Turns on/off the main power.
(3)	**Analog audio input/output section**	Used for analog audio input/output. **Analog audio input/output section►P37**
(4)	**LAN port**	Used to connect a LAN cable.
(5)	**R1 input section**	Used for input to the R1 channel. **R1 input section►P38**
(6)	**P1 output section**	Used for output from the P1 channel. **P1/P2 output section►P38**
(7)	**P2 output section**	Used for output from the P2 channel. **P1/P2 output section►P38**
(8)	**Monitor (VGA) port**	Used to connect a PC monitor.
(9)	**Monitor (DVI-D) port**	Used to connect a PC monitor.
(10)	**USB (2.0) port**	Used to connect a keyboard, mouse, and so on.

(11)	**Sound**	Not used.
(12)	**REF IN**	Used to input REF signal.
(13)	**GPI I/O**	Used for GPI input/output.
(14)	**REMOTE RS422 port**	Used for remote control of R1, P1, P2 channels.
(15)	**MONITOR**	Used for audio monitor.

NOTE

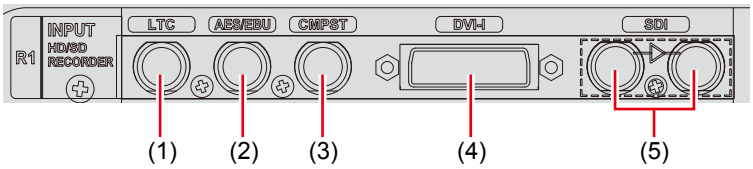
- In the workstation mode, you cannot use T2 with the monitor ports (VGA/DVI-D) connected simultaneously. (Exclusive use only)
- Be sure to turn off your T2 when removing and inserting the cable for the monitor ports.

Analog audio input/output section



(1)	**R1 - CH1** **R1 - CH2**	Used for audio input to the R1 channel. (Balanced audio input.) XLR-3-31 × 2 (CH1 - 2)
(2)	**P1 - CH1** **P1 - CH2**	Used for audio output to the P1 channel. (Balanced audio output.) XLR-3-32 × 2 (CH1 - 2) **Audio level detail display (P1/P2 channel) ▶ P137**
(3)	**P2 - CH1** **P2 - CH2**	Used for audio output to the P2 channel. (Balanced audio output.) XLR-3-32 × 2 (CH1 - 2) **Audio level detail display (P1/P2 channel) ▶ P137**

R1 input section

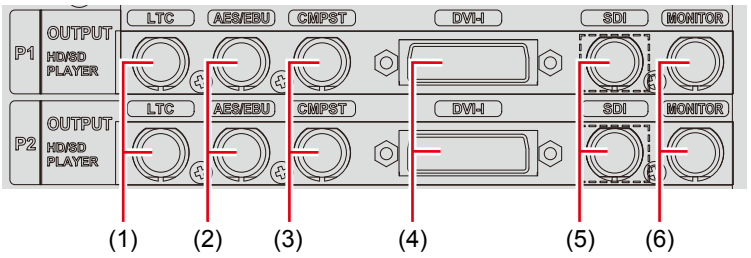


(1)	**LTC**	Used for LTC (timecode) input.
(2)	**AES/EBU**	Used for digital audio (AES/EBU) input.
(3)	**CMPST**	Used for composite input.
(4)	**DVI-I**	Used for DVI-I input. (Also for DVI and YPbPr.)
(5)	**SDI**	Used for SDI input (left), and for active through (right).

TIP

- YPbPr signal is input via the analog RGB pins on the DVI-I port. To input YPbPr signal, use an analog RGB conversion connector cable.

P1/P2 output section



(1)	**LTC**	Used for LTC (timecode) output.
(2)	**AES/EBU**	Used for digital audio (AES/EBU) output. **Audio level detail display (P1/P2 channel) ►P137**
(3)	**CMPST**	Used for composite output.
(4)	**DVI-I**	Used for DVI-I output. (Also for DVI, RGB, and YPbPr.)
(5)	**SDI**	Used for SDI output.
(6)	**MONITOR**	Used for monitor output (composite).

TIP

- YPbPr signal is output via the analog RGB pins on the DVI-I port. To output YPbPr signal, use an analog RGB conversion connector cable.

Section 4

Connection/Start-up/Exit

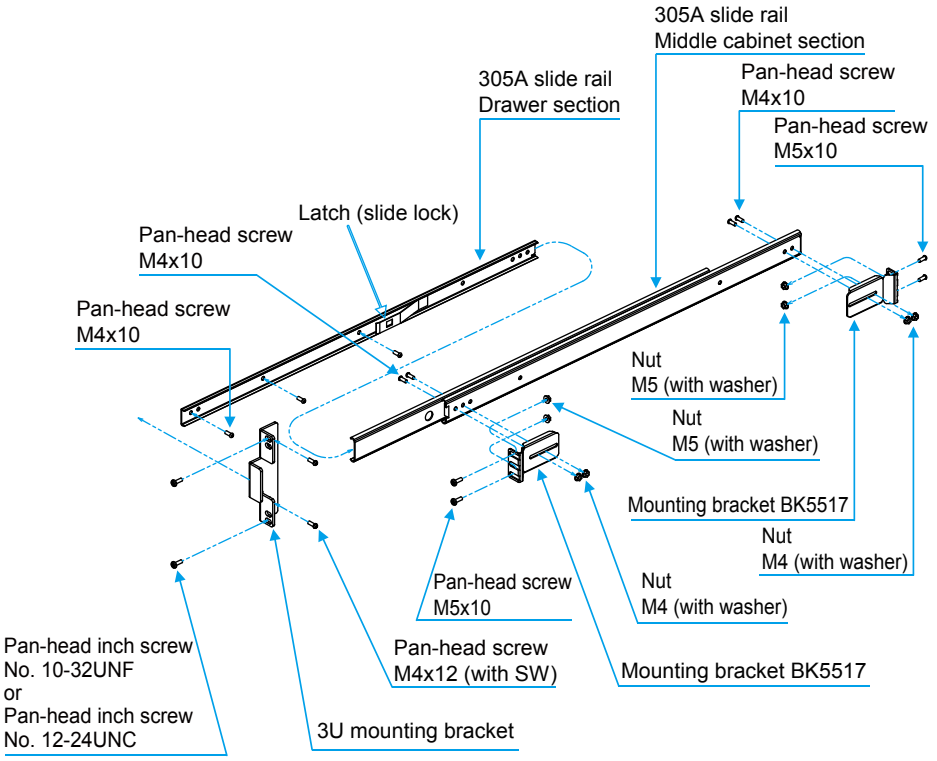
This section describes how to attach T2 iDDR Rack Mount Kit (optional), how to connect peripheral devices to T2, start-up and exit procedures, and switching procedures of front panel mode and workstation mode.

Attaching T2 iDDR Rack Mount Kit (optional)

The procedure to set T2 to a rack using T2 iDDR Rack Mount Kit (optional) is described in this part.

Parts of T2 iDDR Rack Mount Kit

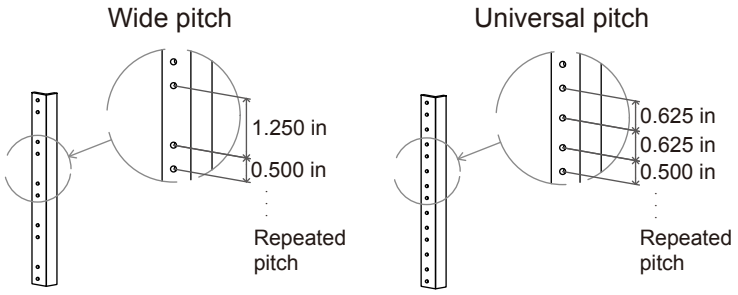
T2 iDDR Rack Mount Kit includes two rails for the left and right sides and other accessories.
The following illustration shows the right side of the parts of T2 iDDR Rack Mount Kit. (The parts are same on the left side.)



Setting to a 19 inch rack

T2 iDDR Rack Mount Kit supports EIAJ 19 inch unit rack.
With the brackets supplied with T2 iDDR Rack Mount Kit, set your T2 to the mounting holes of the mounting chassis of the EIAJ 19 inch unit rack.

EIAJ 19 inch unit chassis specifications



Setting T2 to a rack

The procedure to attach T2 iDDR Rack Mount Kit to a rack and set T2 is described in this part.

NOTE

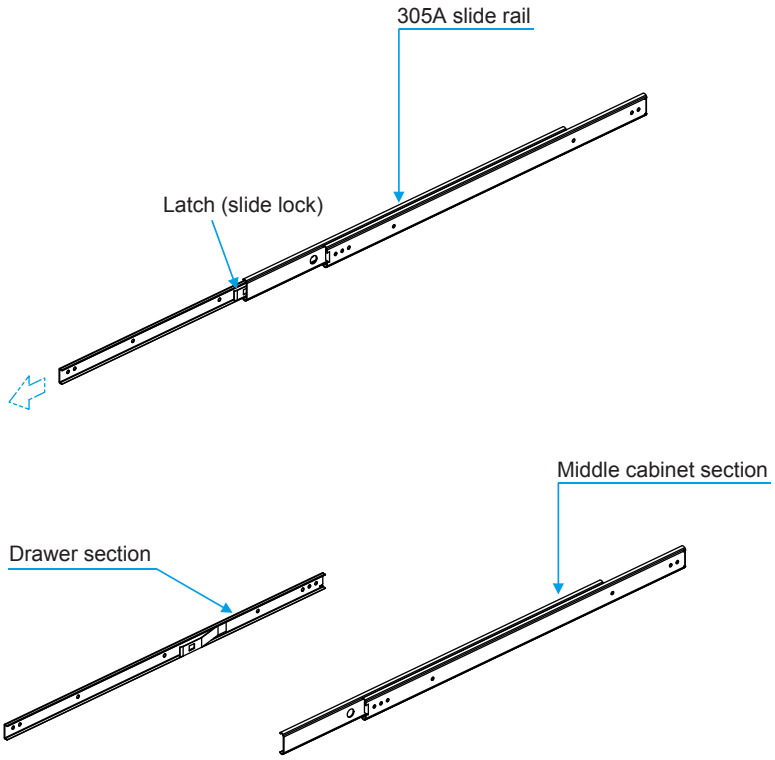
- The screws can come loose because of the movement of the slide rails. To set this product, make sure that the screws are firmly fastened. (If the product is not fixed firmly, the drawer may not move smoothly.)
- When you operate your T2 set in a rack, in order to dissipate the exhaust heat, be sure that there is enough space between the devices set above and below so that the heat can be easily released. (When devices are set too close to each other, their internal temperatures may increase, causing problems or malfunctions.)

1 Disassembly of slide rail

If you pull out the slide rail to as far as it goes in the direction of the arrow in the illustration, the latch on the drawer section (slide lock) will automatically lock the slide rail.
To disassemble, push the tip of the latch (slide lock) to unlock, and pull the drawer section in the direction shown in the arrow.
Disassemble the slide rail on the other side in the same procedure.

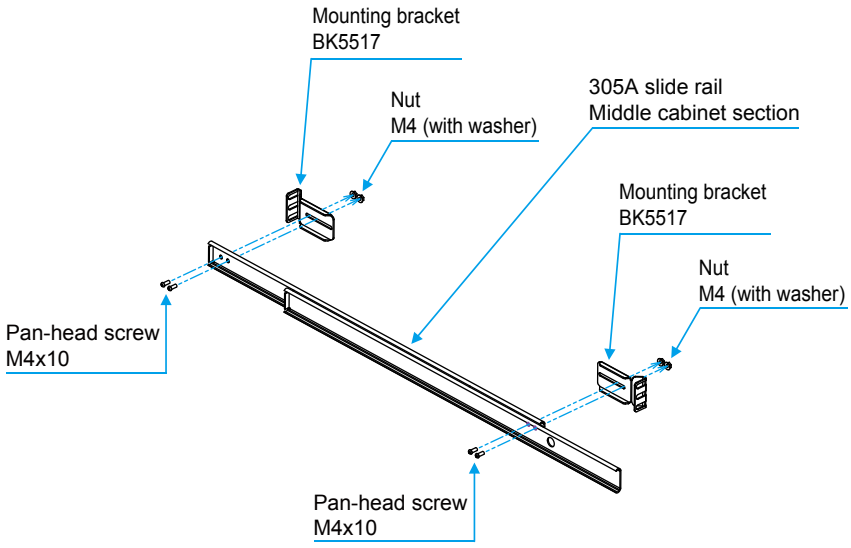
NOTE

- Be careful not to get your fingers jammed in the moving parts when pulling out the slide rail.
- A small amount of oil is applied on the moving parts of the drawer and middle cabinet sections for the smooth slide movements. Be careful when handling those parts.



2 Set the mounting bracket to the slide rails (middle cabinet section).

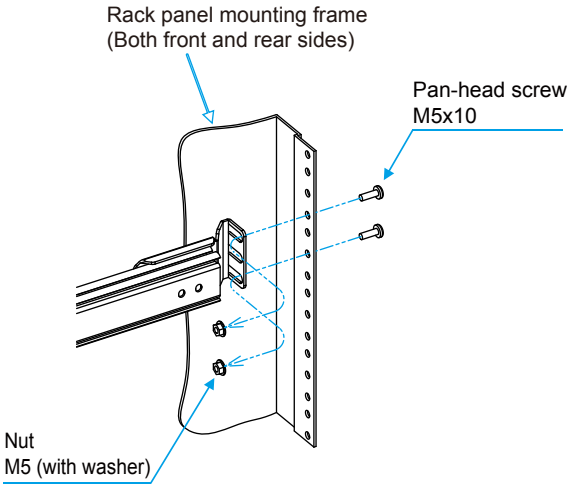
Set the mounting bracket (two pieces) to the middle cabinet section and affix them.
Set the mounting bracket to the other side of the middle cabinet section in the same procedure.



3 Set the slide rails (middle cabinet section) to the rack.

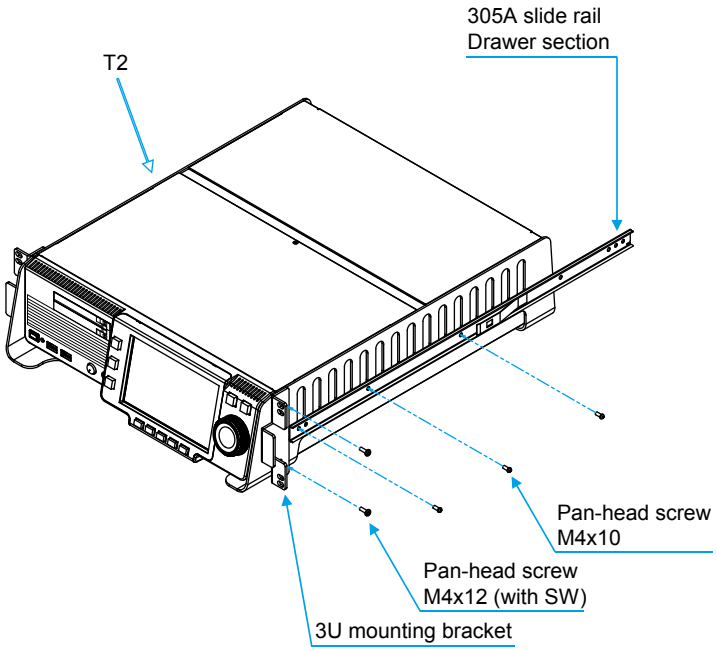
After affixing the bracket to the panel mounting frame, fasten the screws to affix the slide rail and the bracket so that they are firmly fastened.
Set the slide rail on the other side to the rack in the same procedure.
To mount your T2 to a rack, make sure that the two rails are set at the same height, and be sure to fasten the mounting brackets on both ends to the rack (panel mounting frame).

TIP • When using female screws on the panel mounting frame, follow the instructions and use screws specified for the rack.



4 Set the 3U mounting bracket and slide rail (drawer section) to the T2 body.

Set the 3U mounting bracket and slide rail (drawer section) to the side of the T2 body.
Set the other 3U mounting bracket and slide rail (drawer section) to the other side of your T2, in the same way.
When setting slide rails to the left and right sides, make sure that both rails are set at the same height.



5 Set T2 to the slide rails attached on the rack.

Insert the slide rails (drawer section) attached on both sides of T2 into the slide rails (middle cabinet section) to set your T2 to the rack.
T2 will mount smoothly without locking the latch (slide lock), when setting your T2 to a rack. If you try to forcefully slide your T2 into the rack, the slide rails may be damaged.
Make sure that T2 can be mounted all the way to the end, and that T2 can then be smoothly slid out, and then affix the 3U mounting bracket to the rack panel mounting frame.

TIP

- If your T2 cannot slide smoothly in the rack, the position and angle of the slide rails must be adjusted. check the positions of the parts and adjust them so that the slide rails move smoothly.
- Some rack types may not fit the accessories (screws) of this product. Check the specifications of your rack, and use the recommended parts for your rack.

Operating after set up

When you slide your T2 out from a rack, if you remove the fixing screws of the 3U mounting brackets set on the left and right sides of the T2, the latch automatically locks at the position where the T2 was fully slid out.
To pull your T2 out from a rack, or to slide it back into a rack again, push down the tip of the latches on the slide rails (drawer section) on both the left and right sides, to unlock the slide rail.

NOTE
- When you operate your T2 set in a rack, in order to dissipate the exhaust heat, be sure that there is enough space between the devices set above and below so that the heat can be easily released. (When devices are set too close to each other, their internal temperatures may increase, causing problems or malfunctions.)

Connecting peripheral devices

The procedure to connect peripheral devices such as external input/output device to T2 is described in this part.

1 Connect a device for R1 channel input to T2.

Connect a device to the analog audio input/output section or R1 input section on T2 rear panel.

Analog audio input/output section►P37
R1 input section►P38

TIP
- YPbPr signal is input via the analog RGB pins on the DVI-I port. To input YPbPr signal, use an analog RGB conversion connector cable.

2 Connect a device for P1/P2 channel output to T2.

Connect a device to the analog audio input/output section or P1/P2 output section on T2 rear panel.

Analog audio input/output section►P37
P1/P2 output section►P38
Supported video format and output port►P223

TIP
- YPbPr signal is output via analog RGB pins on the DVI-I port. To output YPbPr signal, use an analog RGB conversion connector cable.

3 If you wish to operate T2 in the workstation mode, connect a mouse, keyboard, and PC monitor (optional) to T2.

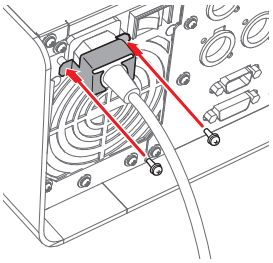
Connect the mouse and keyboard to the USB (2.0) port, and connect the PC monitor to the monitor port.

Rear panel►P36

If you wish to operate T2 in the front panel mode, you do not need to connect a mouse, keyboard, and PC monitor.

4 Insert the power cable to the inlet of T2.

5 If necessary, fix the power cable fixing clamp using the provided screws.



NOTE

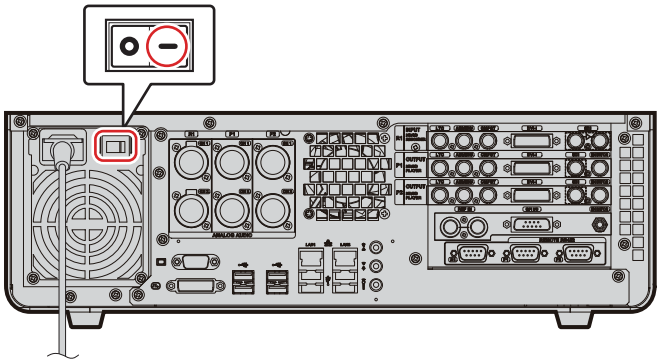
- When fixing the power cable fixing clamp, be careful not to loosen the fixing screw of the fan on the power unit.

6 Connect the power cable to the AC power outlet.

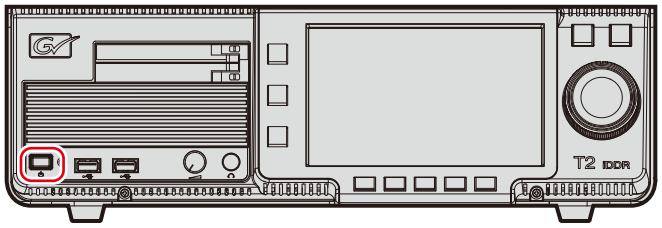
Starting up and exiting T2

Starting up T2

1 Turn on the main power switch on the T2 rear panel.



2 Turn on the main power switch on the T2 front panel.



When starting up for the first time, T2 will start up in the front panel mode. The display appears in the 3ch view on the touch screen LCD.
Other than the first time, T2 will start up in the previously used operation mode (front panel mode or workstation mode).

TIP

- To start up T2 in the workstation mode, start up T2 in the front panel mode, and then switch to the workstation mode.
  Switching from the front panel mode to the workstation mode►P47
  Once switched to the workstation mode, T2 will start up in the workstation mode after the next start-up.

Exiting T2 in the front panel mode

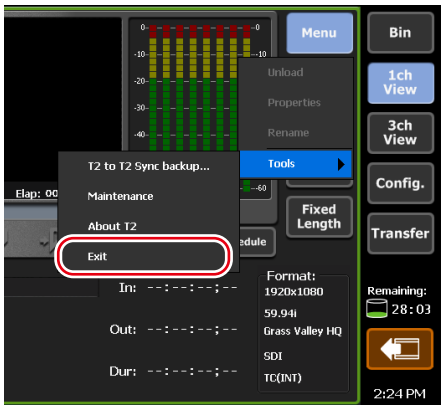
NOTE

- Do not forcibly exit T2 by holding down the power switch or turning off the main power switch. A malfunction may occur.

1 Press one of the [R1], [P1], or [P2] button.

You can also perform the operation by tapping [1ch View] on the touch screen LCD or [Bin].

2 Tap [Menu], and then tap [Tools] -> [Exit].



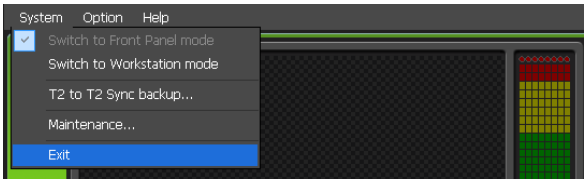
3 Select [Shut Down] from the list and tap [OK].

To restart T2, select [Restart].
If you do not use T2 for a long time, turn off the main power switch on the T2 rear panel and unplug the power cord.

Exiting T2 in workstation mode

NOTE • Do not forcibly exit T2 by holding down the power switch or turning off the main power switch. A malfunction may occur.

1 On the PC monitor, click [System] on the menu bar, and click [Exit].



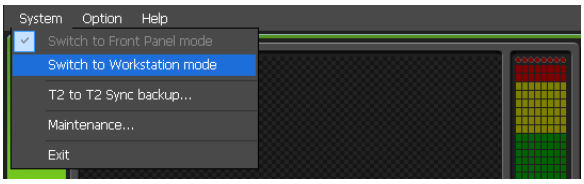
2 Select [Shut Down] from the list and click [OK].

To restart T2, select [Restart].
If you do not use T2 for a long time, turn off the main power switch on the T2 rear panel and unplug the power cord.

Switching front panel mode/workstation mode

Switching from the front panel mode to the workstation mode

1 On the PC monitor, click [System] on the menu bar, and click [Switch to Workstation mode].



Switching from the workstation mode to the front panel mode

1 Tap the touch screen LCD.

You can also switch the mode on the PC monitor, by clicking [System] on the menu bar, and then clicking [Switch to Front Panel mode].

Checking the software version

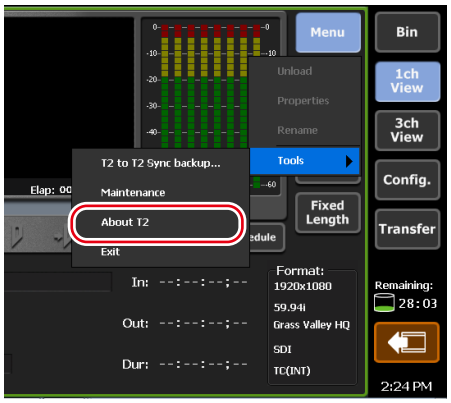
You can check the software version of your T2.

1 Press one of the [R1], [P1], or [P2] button.

You can also perform the operation by tapping [1ch View] on the touch screen LCD or [Bin].

2 Tap [Menu] on the touch screen LCD, and tap [Tools] -> [About T2].

The version information of T2 is displayed.



Section 5

Recording

This section describes the recording procedure in the R1 channel.

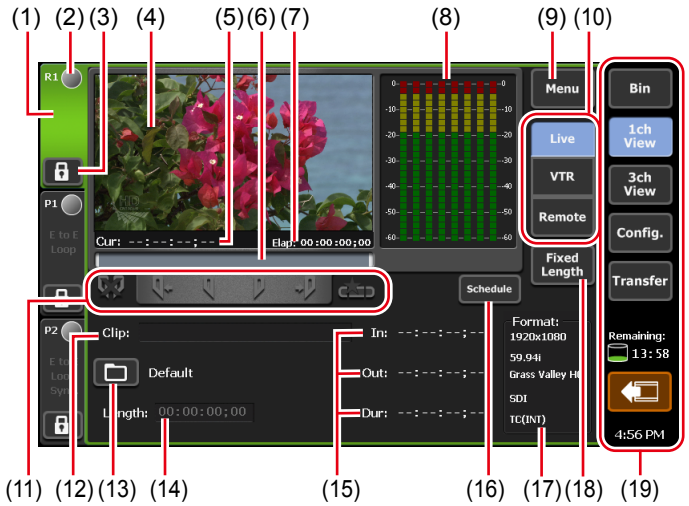
Displaying R1 channel in 1ch view

In the 1ch view of the R1 channel, various operations for recording are available.

1 Press the [R1] button.

The display switches to the 1ch view of the R1 channel, and the [R1] button lights in green.
You can also switch by tapping [1ch View] and then tapping the R1 channel tab.

➢ R1 channel – 1ch view

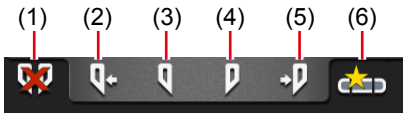


(1)	**R1 channel tab**	By tapping, selects and highlights the R1 channel.
(2)	**Status**	Indicates the recording progress status.

(3)	**[Locked]**	Locks R1 channel operations. While the operations are locked, [Locked] and [R1] buttons light in red. Tapping it again releases the lock.
(4)	**Preview**	Displays the video currently recorded. Tapping the preview displays in the full screen view.
(5)	**[Cur:]**	Indicates the current timecode.
(6)	**Scrubbing bar**	Indicates the recording progress status.
(7)	**[Elap:]**	Indicates the elapsed time of recording by timecode display.
(8)	**Audio level display**	Displays input audio level.
(9)	**[Menu]**	Displays the related menu.
(10)	**Recording mode**	Switches the recording mode (R1-live mode /R1-VTR mode/R1-remote mode).
(11)	**Operation buttons**	**Operation buttons of R1 channel►P51**
(12)	**[Clip:]**	Displays the name of the clip currently recorded.
(13)	**[Saving destination]**	Sets the saving destination of the recorded clip. The destination bin name is displayed in the right. If the saving destination is an external storage, it changes to green.
(14)	**[Length:]**	If [Fixed Length] is on, sets the time length (duration) from the start point to the end point of recording by tapping the timecode.
(15)	**[In:]/[Out:]/[Dur:]**	Indicates the timecode of In/Out points and duration. If fixed length recording mode is off, you can set In or Out point by tapping the timecode of [In:] or [Out:].

(16)	**[Schedule]**	In the R1-live mode, automatically starts recording operation at a specified time, and ends it at a specified time. In the front panel mode, allows to switch on/off of schedule and to display the schedule list. To add, edit, or delete schedules, use the workstation mode. **R1-live mode / schedule mode►P126**
(17)	**[Format:]**	Displays the video size, frame rate, input settings, port used for input, source TC (TC (LTC)/SDI (VITC)/INT), etc.
(18)	**[Fixed Length]**	By tapping to set it on, automatically ends recording after the duration specified in [Length:] has passed.
(19)	**1ch view/3ch view/ bin/transfer screen common area**	**1ch view/3ch view/bin/transfer screen common area►P52**

➢ Operation buttons of R1 channel

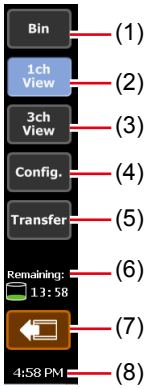


(1)	**[Clear (In/Out)]**	Clears set In/Out points.
(2)	**[Cue(In)]**[*1]	Moves the VTR to the In point.
(3)	**[Mark(In)]**	Sets In point to the current position.
(4)	**[Mark(Out)]**	Sets Out point to the current position.
(5)	**[Cue(Out)]**[*1]	Moves the VTR to the Out point.
(6)	**[Create Subclip]**[*2]	Creates a sub clip between In-Out points set while recording, and saves it as highlight.

*1 Only for R1-VTR mode.

*2 Only for R1-live mode. However, if the video being recorded is saved to an external media/storage, a sub clip cannot be created.

➢ 1ch view/3ch view/bin/transfer screen common area



(1)	[Bin]	Display the bin view. **Managing contents in the bin►P79**
(2)	[1ch View]	Switches the currently selected channel to 1ch view.
(3)	[3ch View]	Switches to 3ch view.
(4)	[Config.]	Displays the setting screen. **Displaying the setting screen►P168**
(5)	[Transfer]	Display the transfer screen. **Checking the transfer status►P67**
(6)	Remaining HDD (remaining time)	Displays the estimated recording time available on HDD. When the remaining capacity reduces, the icon is displayed in red.
(7)	[Remove Device]	Displayed when a removable drive such as USB removable media, XDCAM, P2, GF, etc. is connected. By tapping, disconnects the removable media.
(8)	Time	Displays the current time. **Date and time ssetting dialog box►P181**

NOTE • If the icon appears in 1ch view/3ch view/bin/transfer screen common area, there is a problem with the RAID system. Consult the shop of purchase.

Selecting R1 channel in 3ch view

In 3ch view, you can view three channels, the video recorded in the R1 channel and the clip or playlist played in the P1/P2 channel simultaneously. In 3ch view of the R1 channel, you can use the operation buttons on the lower part of the touch screen LCD, to start and end of recording.

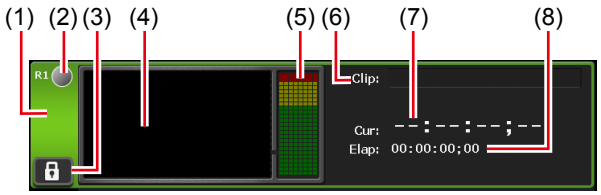
1 Tap [3ch View].

The display switches to 3ch view.

2 Tap the R1 channel tab.

R1 channel is selected and highlighted.

➢ R1 channel – 3ch view



(1)	**R1 channel tab**	By tapping, selects and highlights the R1 channel.
(2)	**Status**	Indicates the recording progress status.
(3)	**[Locked]**	Locks R1 channel operations. While the operations are locked, [Locked] and [R1] buttons light in red. Tapping it again releases the lock.
(4)	**Preview**	Displays the video currently recorded.
(5)	**Audio level display**	Displays input audio level.
(6)	**[Clip:]**	Indicates the name of the clip.

(7)	[Cur:]	Indicates the current timecode.
(8)	[Elap:]	Indicates the elapsed time of recording by timecode display.

Recording by VTR control from T2 (R1-VTR mode)

The procedure to control VTR from your T2 and perform recording is described in this part.
Set the connection information of the VTR used for recording or the video format for capturing beforehand.

General – Hardware settings►P169
R1 settings►P182
Transfer – common settings►P192

If necessary, make settings in the setting screen according to the environment in use.

Settings►P168

TIP

- In the workstation mode, you can import the batch capture list to your T2 and record sources at once.
  Recording sources at once (batch capturing)►P160
- The VTR can be controlled by using your T2 as a controller and via AMP command or BVW command.
  Controlling an external device from T2 with AMP/BVW (R1-VTR mode)►P210
  AMP command list►P225
  BVW command list►P238

1 Press the [R1] button on T2.

R1 channel is displayed in 1ch view.

R1 channel – 1ch view►P49

The video from the external input device is displayed in the preview.

2 Tap [VTR].

The mode switches to the R1-VTR mode.

3 Tap [Saving destination], select the saving destination of the clip to record, and then tap [OK].

4 Play back the video to record and tap [Mark(In)] and [Mark(Out)] to specify the recording range (In/Out points).

Playing back video►P99

You can also specify the timecode by tapping the entry area of [In:] and [Out:].

TIP

- You can also specify the time lapse from the start point of recording (duration) to automatically end the recording. Tap [Fixed Length], tap the entry area of [Length:], and enter the timecode.

5 Press the [Rec] button.

The recording starts. The recording automatically ends at the specified Out point.
You can set the clip name by tapping the entry area of [Clip:] while recording.
To end the recording in the middle, press the [Stop] button.
After the recording ends, the recorded clip is saved in the bin selected in step 3.

TIP

- The video currently recorded in the R1 channel can be loaded and played on the P1/P2 channel.
  Loading and playing back video currently recorded (chasing playback)►P100
- The video currently recorded in the R1 channel can be output from the P1/P2 channel with active through.
  Outputting currently recorded video with active through (E to E mode)►P101
- To check the properties of the clip currently recorded, tap [Menu] and then tap [Properties] on the 1ch view of the R1 channel.
- To change the name of the clip currently recorded, tap [Menu] and then tap [Rename] on the 1ch view of the R1 channel.
- To unload the video after recording, tap [Menu] and then tap [Unload] on the 1ch view of the R1 channel.

Recording live video (R1-live mode)

The procedure to record live video from an external device is described in this part.
Set the connection information of the external device used for recording or the video format for capturing beforehand.
General – Hardware settings►P169
R1 settings►P182
Transfer – common settings►P192
If necessary, make settings in the setting screen according to the environment in use.
Settings►P168
You can also set to automatically start recording operation at a specified time and end it at a specified time. (Only available in the workstation mode.)

R1-live mode / schedule mode►P126

TIP
- You can also record video from a device that cannot allow deck control in the same procedure. Find the start point of the video for recording beforehand.

1 Press the [R1] button on T2.

R1 channel is displayed in 1ch view.
R1 channel – 1ch view►P49
The video from the external input device is displayed in the preview.

2 Tap [Live].

The mode switches to the R1-live mode.

3 Tap [Saving destination], select the saving destination of the clip to record, and then tap [OK].

4 If necessary, play the video from the external device and press the [Rec] button on T2.

The recording starts.
You can set the clip name by tapping the entry area of [Clip:] while recording.

TIP
- An important part in the recorded video can be saved in another clip as highlight. Tap [Mark(In)] and [Mark(Out)], and then tap [Create Subclip]. However, if the video being recorded is saved to an external storage, a sub clip cannot be created.
- You can also specify the time lapse from the start point of recording (duration) to automatically end the recording. Tap [Fixed Length], tap the entry area of [Length:], and enter the timecode.
- The video currently recorded in the R1 channel can be loaded and played on the P1/P2 channel.
  Loading and playing back video currently recorded (chasing playback)►P100
- The video currently recorded in the R1 channel can be output from the P1/P2 channel with active through.
  Outputting currently recorded video with active through (E to E mode)►P101
- To check the properties of the clip currently recorded, tap [Menu] and then tap [Properties] on the 1ch view of the R1 channel.
- To change the name of the clip currently recorded, tap [Menu] and then tap [Rename] on the 1ch view of the R1 channel.

5 After recording the necessary video, press the [Stop] button on T2.

After stopping recording, the recorded clip is saved in the bin selected in step 3.

TIP

- To unload the video after recording, tap [Menu] and then tap [Unload] on the 1ch view of the R1 channel.

Section 6

Import/Export

This section describes the procedure to import a media file from a removable media or network drive and to export contents edited in your T2.

Importing a media file

Displaying the [Browse] tab

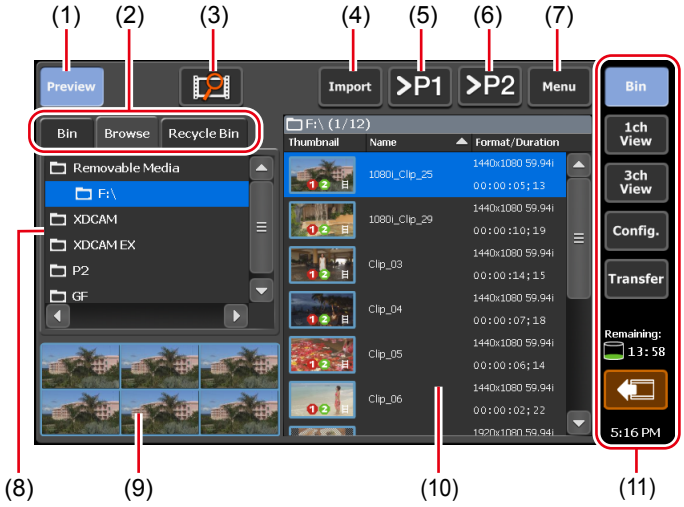
Import of media files from a removable media such as USB removable device, XDCAM, P2, GF, and from a network drive to your T2 is performed from the [Browse] tab.

1 Tap [Bin].

The bin view appears.

2 Tap the [Browse] tab.

➢ [Browse] tab



(1)	[Preview]	Switches on/off of the preview (filmstrip).
(2)	View switching tab	Switches between [Bin] tab/[Browse] tab/ [Recycle Bin] tab.

(3)	**[New connection]**	When a removable media is connected to T2, you can select a folder to display in the [Browse] tab.
(4)	**[Import]**	Imports the selected media file to T2 as a clip.
(5)	**[>P1]**	Loads the selected media file to the P1 channel. You can play and check the video without importing to T2 as a clip. However, the playback speed depends on the specifications of the connected removable media.
(6)	**[>P2]**	Loads the selected media file to the P2 channel. You can play and check the video without importing to T2 as a clip. However, the playback speed depends on the specifications of the connected removable media.
(7)	**[Menu]**	Displays the related menu.
(8)	**Removable media list**	Displays the media or folders in the removable media connected to T2. The selected folder is highlighted in blue.
(9)	**Filmstrip display**	By tapping [Preview] and set it on, displays the contents in the media file in filmstrip with six frames.
(10)	**Media file list**	Displays the list of media files in the drive selected from the removable media list. The selected media file is highlighted in blue.
(11)	**1ch view/3ch view/ bin/transfer screen common area**	**1ch view/3ch view/bin/transfer screen common area►P52**

Displaying media file in removable media

Media files in a removable media such as USB removable device, XDCAM, P2, GF, etc. can be displayed without importing to T2.

NOTE

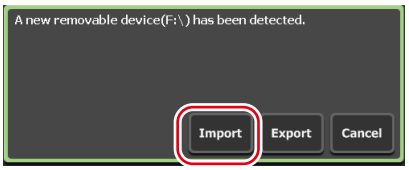
- When using XDCAM, XDCAM EX, or P2 device, install the driver in the maintenance mode before connecting the device to P2. For more information about the maintenance mode, refer to the T2 Maintenance Manual.
  Operation-ensured driver versions for XDCAM/XDCAM EX►P219
  Operation-ensured driver version for P2►P219

TIP

- If you make settings of the network drive in the workstation mode, you can display media files in the network drive from the [Browse] tab.
  Displaying media files in network drive►P162

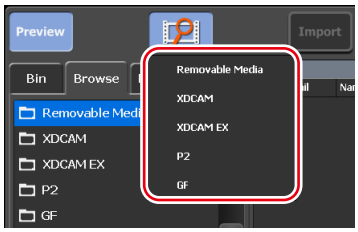
1 Connect a removable media to your T2 and insert medium.

2 Tap [Import].



The screen switches to the [Browse] tab.

3 Tap [New connection] and select a medium type.



4 Select a drive, and then tap [OK].

Media file list including media files appears.

TIP

- To update information in the removable media, tap [Menu], and then tap [Refresh].

Playing media file in removable media

You can load media files in a removable media to T2 and play them.

NOTE
- The system is under heavy load during playback of clips in removable media. It is recommended that you import the file to your T2 and play it.

1 Select a drive in the [Browse] tab and display the media file.

Displaying media file in removable media►P60

2 Select a media file and tap [>P1] or [>P2].

While another clip is loaded, a confirmation message appears. Tap [Yes] to unload the clip.
The media file is loaded to the P1 channel or P2 channel.

TIP
- You can also load the file to the selected channel by tapping the media file two times.

3 Press the [Play] button.

Playing back video►P99

TIP
- The following operation are available on the media files loaded to the P1/P2 channel.
  - Playback operation using the T2 front panel control buttons
  - Setting of In and Out points and moving to In or Out point

NOTE
- Depending on the specifications of the connected removable media, playback operation may not catch up.
- The following operations are not available on the media files loaded to the P1/P2 channel.
  - Import of video between set In-Out points
  - Gain adjustment of audio level
  - Tag editing (workstation mode only)
  - Sync playback (pairing)
  - Adding to playlist
  - Creating sub clips

  If you add files to playlist or create sub clips, import the media file before you perform the operation.

Checking the properties of media file

The procedure for checking the properties of media file is described in this part.

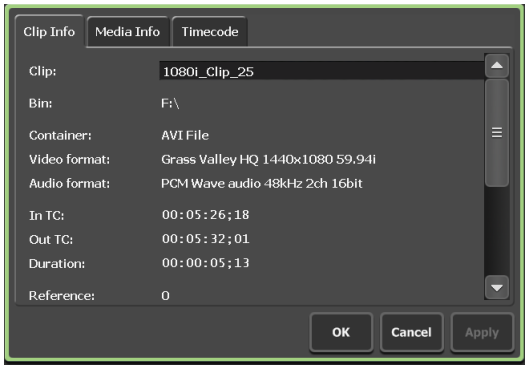
1 Select a drive in the [Browse] tab and display the media file.

Displaying media file in removable media►P60

2 Select a media file, tap [Menu], and then tap [Properties].

The properties of media file is displayed.

➢ Properties of media file



[Clip Info] tab	Displays the clip information. You can check the clip name, format, In/Out points timecode, length, alpha channel presence, date of creation, etc. Tapping the entry area allows to change the clip name. Checking [Locked] locks the clip from editing.
[Media Info] tab	The information of media file is displayed. You can check the file path, number of clips and playlists linked to the media file, size, In/Out points timecode, etc. Tapping [Details...] allows to check the details of the clips linked to the media file.
[Timecode] tab	Specifies starting timecode. To use the starting timecode of a media file, select [Source]. To specify a starting timecode, select [Specify Start Time], tap the entry area, and enter timecode.

3 Tap [OK].

Changing media file list display

You can switch the display of the media file list between icon display and text display.

1 Tap [Menu], and then tap [View].

2 Tap [Icon View] or [Text View].

Importing a media file

The procedure for importing media file to T2 is described in this part.
At the time of import, you can set whether to import the file in the native format or in a converted format such as Grass Valley HQ AVI.
The import operation will be easier if the format for the imported file and other setting items have been set beforehand.

Transfer settings►P192

If necessary, make settings in the setting screen according to the environment in use.

Settings►P168

TIP

- For more information about the file formats that can be imported, see "Appendix".
  Input format►P220
- For XDCAM, XDCAM EX, P2, and GF sources, all files under the root folder and all folders in the root folder will be copied. As for files in each folder, only the files that are related to the selected file for the import will be copied.
- You can convert a file to Grass Valley HQ AVI after importing it as the native format.
  Converting contents to other formats►P85
- Still image files are converted to Grass Valley HQ AVI and imported.
- The maximum file size of the still image that can be imported is 4,096 x 2,304 pixels (4K).
- The system will import files that contain transparency information after converting them to Grass Valley HQ AVI. In this case, the conversion is performed so that the bitrate will be lower (the Q value = 12).

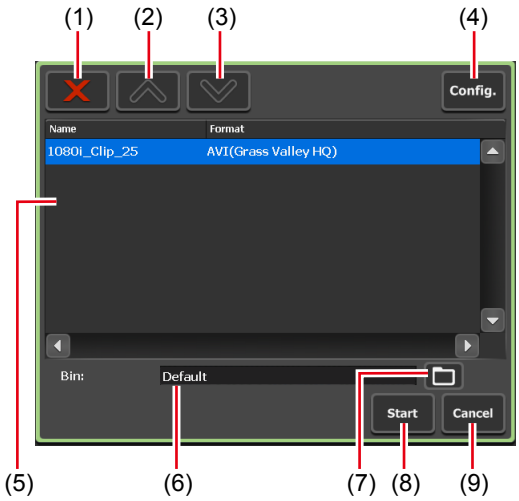
1 Select a drive in the [Browse] tab and display the media file.

Displaying media file in removable media►P60

2 Select a media file, tap [Import], and then tap [Import...].

The Import dialog box appears.

➢ Import dialog box

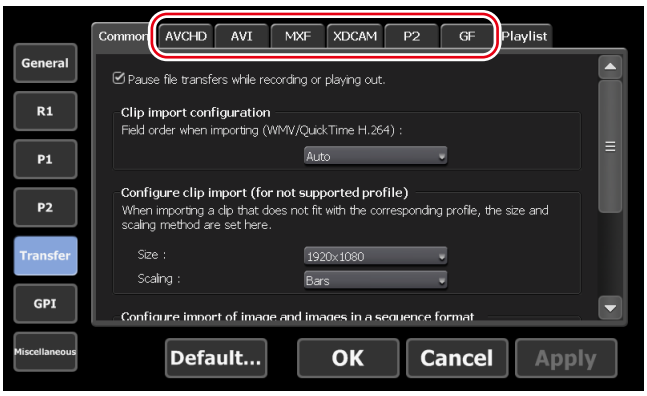


(1)	**[Delete]**	Deletes the selected file from the import list.
(2)	**[UP]**	Moves up the selected file.
(3)	**[DOWN]**	Moves down the selected file.
(4)	**[Config.]**	Displays the setting screen. Sets the file format after imported.
(5)	**Import list**	Displays the list of the files to be imported. [Format] shows the formats of files to be imported.
(6)	**[Bin:]**	Displays the saving destination bin for the imported media files.
(7)	**[Select Import Destination Bin]**	Selects the saving destination bin for the imported media files.
(8)	**[Start]**	Starts import.
(9)	**[Cancel]**	Closes the import dialog box.

3 Tap [Config.].

If conversion of the format of the file to import is not necessary, you do not need to change the settings in the setting screen. Proceed to step 6.

4 Tap the tab of the format of the media file.



For example, if the media file to import is XDCAM format, tap the [XDCAM] tab. If it is an MXF single file, tap the [MXF] tab.

5 From the [File format after import:] list, select a post-import format and then tap [OK].

6 In the import dialog box, tap [Select Import Destination Bin], select a bin, and tap [OK].

7 Tap [Start].

Import starts. You can check the progress in the transfer screen.
Checking the transfer status►P67

NOTE

- By default, the system will pause any transfer and conversion during a recording or playback. If you want transfer and conversion to be performed even during a recording or playback, change the setting by [Transfer] -> [Common] on the setting screen. Unchecking [Pause file transfers while recording or playing out.] enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
  Transfer – common settings►P192

Importing still images with serial numbers as a sequence clip

Still images with serial numbers can be imported as a single sequence clip (in Grass Valley HQ AVI).
If necessary, make settings in the setting screen according to the environment in use.

Settings►P168

NOTE

- If a file has a name that has characters followed by numerics, such as Clip1234.jpg, it will be recognized as a still image file with a sequential number.
- If some of the files have different extensions, or if files with added alpha channel and those without alpha are mixed, the import of the still images with serial numbers will be canceled.

TIP

- The maximum file size of the still image that can be imported is 4,096 x 2,304 pixels (4K).

1 Select a drive in the [Browse] tab and display the media file.

Displaying media file in removable media►P60

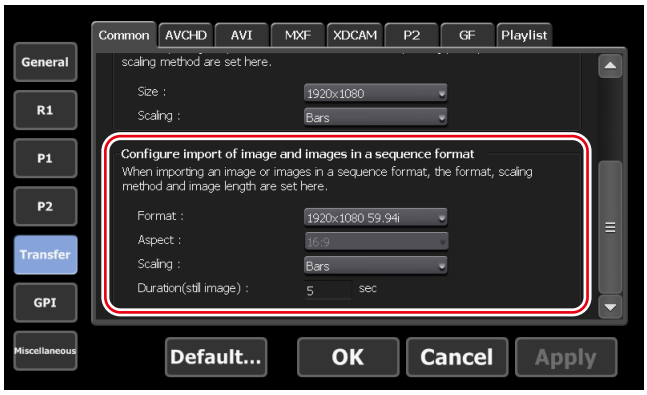
2 Select the first file in the serial numbers, tap [Import], and then tap [Import (Sequence)...].

The Import dialog box appears.

Import dialog box►P64

3 Tap [Config.].

4 In [Configure import of image and images in a sequence format], select a post-import format and then tap [OK].



5 In the import dialog box, tap [Select Import Destination Bin], select a bin, and tap [OK].

6 Tap [Start].

Import starts. You can check the progress in the transfer screen.
Checking the transfer status►P67

NOTE

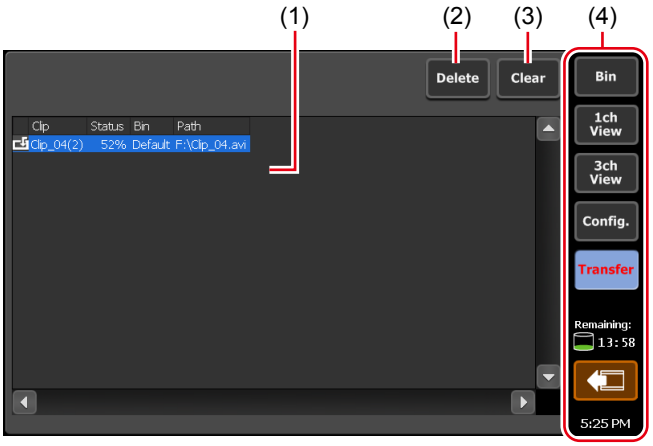
- By default, the system will pause any transfer and conversion during a recording or playback. If you want transfer and conversion to be performed even during a recording or playback, change the setting by [Transfer] -> [Common] on the setting screen. Unchecking [Pause file transfers while recording or playing out.] enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
  Transfer – common settings►P192

Checking the transfer status

You can check the status of file transfer or conversion (jobs) in the transfer screen.

1 Tap [Transfer].

➢ Transfer screen



(1)	**Job list**	Displays the list of jobs. **[Clip]** Indicates the name of the clip. **[Status]** Indicates the job progress status. **[Bin]** Indicates the bin name. **[Path]** Indicates media file path and file name.
(2)	**[Delete]**	Deletes selected jobs. If you tap [Delete] while executing a job, the job will be canceled.
(3)	**[Clear]**	Deletes all jobs from the job list.
(4)	**1ch view/3ch view/ bin/transfer screen common area**	**1ch view/3ch view/bin/transfer screen common area►P52**

Removing medium in removable media

The procedures to remove a medium in the removable media connected to your T2 (such as XDCAM professional disc, SxS memory card, and P2 card), and to disconnect the folder in the USB removable device or GFPAK are described in this part.

1. Select a drive in the [Browse] tab.
2. Tap [Menu], and then tap [Disconnect].
3. A message appears. Tap [OK].
4. Remove the medium (XDCAM professional disc, SxS memory card, or P2 card) from the removable media.

If you want to disconnect your T2 from the removable media, disconnect the removable media.

Removing removable media►P69

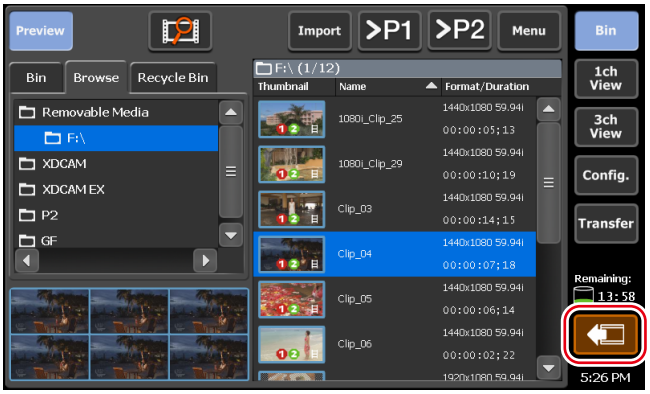
Removing removable media

The procedure to remove a removable media such as USB removable device, XDCAM, P2, GF, etc. from T2 is described in this part.
Before removing the removable media you need to disconnect the medium or file in the media.

Removing medium in removable media►P68

1 Tap [Remove Device].

You can operate it from the bin view, 1ch view, 3ch view, and transfer screen.



2 Select a removable media, and then tap [Remove].

3 A message appears. Tap [Yes].

4 Remove the removable media from T2.

TIP

- If the media indicates a status that it is being used and you cannot remove it even after tapping [Remove], turn off the T2 and remove the removable media.

Exporting a file

Exporting contents to a file

The procedure to export a clip or playlist stored in the bin of your T2 to a file is described in this part.
At the time of export, you can set whether to export the file in the native format or in a converted format.
The export operation will be easier if the format for the exported file and other setting items have been set beforehand.

Transfer settings►P192

If necessary, make settings in the setting screen according to the environment in use.

Operations in Workstation Mode►P122

NOTE

- For XDCAM, XDCAM EX, P2, and GF sources, all files under the root folder and all folders in the root folder will be copied. As for files in each folder, only the files that are related to the selected file for the import will be copied. If a clip imported as its native format is exported with no conversion, the exported clip may not be properly handled depending on the device.

TIP

- For more information about the file formats that can be exported, see "Appendix".
  Output format►P222
- For important notes on exporting, see "Appendix".
  Notes on T2 export►P223
- When exporting to a Grass Valley HQ AVI file, the file is trimmed between the set In and Out points and exported. For other formats, the whole file is exported.
- You can export Grass Valley HQ AVI files by converting them to the following formats.
  - MXF format (XDCAM HD422) (1920 x 1080 59.94i/50i/29.97p/25p 50 Mbps)
  - MXF format (XDCAM HD) (1440 x 1080 59.94i/50i/29.97p/25p/23.98p 25 Mbps)
  - MXF format (XDCAM IMX) (720 x 486 59.94i, 720 x 576 50i)
  - MXF format (XDCAM DV) (720 x 486 59.94i, 720 x 576 50i)
- When exporting a playlist to a file, the file is converted with the following features.
  - If several formats are contained, they are converted in one file.
  - A timecode set in a playlist or event properties can be retained in each frame of the converted file.
  - When exporting files in Grass Valley HQ AVI format, the profile (size and frame rate) of the converted file is same as the profile of the playlist.
  - When exporting files in MXF format (XDCAM), files are converted according to the settings of [Advanced AVI transcoding settings] in [Transfer] -> [AVI] on the setting screen.
  - The audio gain set for the event in the playlist is maintained in the converted clip.
  - Audio is converted into PCM 48kHz 24bit 8ch.
- You cannot export a playlist that includes a place holder event.

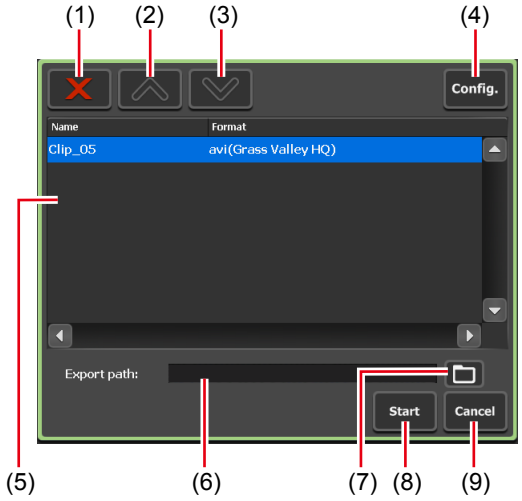
1 Display the contents in the [Bin] tab.

Displaying the [Bin] tab►P79

2 Select an item, tap [Export], and then tap [Export Media Files...].

A message related to export appears. Read the message, and then tap [OK]. The Export dialog box appears.

➢ Export dialog box



(1)	**[Delete]**	Deletes the selected file from the export list.
(2)	**[UP]**	Moves up the selected file.
(3)	**[DOWN]**	Moves down the selected file.
(4)	**[Config.]**	Displays the setting screen. Sets the file format and others after exported.
(5)	**Export list**	Displays the list of the files to be exported. [Format] shows the formats of files to be exported.
(6)	**[Export Path:]**	Displays the saving destination of the files to be exported.
(7)	**[Select Export Folder]**	Selects the saving destination of the files to be exported.
(8)	**[Start]**	Starts export.
(9)	**[Cancel]**	Closes the export dialog box.

3 If necessary, tap [Config.] to set the file format after conversion.

- If conversion is not necessary, you do not need to change the settings in the setting screen. Proceed to step 4.

- To export a Grass Valley HQ AVI file to be converted to MXF (XDCAM format), tap [AVI] and check [Execute transcoding when exporting AVI file.]. Make settings in [Advanced AVI transcoding settings], and tap [OK].
  Transfer – AVI settings►P197
- To export a playlist, tap the [Playlist] tab. From the [File format after export:] list, select a post-import format and then tap [OK].
  Transfer – Playlist settings►P203

4 In the export dialog box, tap [Select Export Folder], select a folder, and tap [OK].

5 Tap [Start].

Export starts. You can check the progress in the transfer screen.
Checking the transfer status►P67

NOTE

- By default, the system will pause any transfer and conversion during a recording or playback. If you want transfer and conversion to be performed even during a recording or playback, change the setting by [Transfer] -> [Common] on the setting screen. Unchecking [Pause file transfers while recording or playing out.] enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
  Transfer – common settings►P192

Exporting contents in T2 format

If you export playlists or clips in the T2 format (TWF file), you can import them to other T2 with the information (In/Out points, effect, event list, etc.) retained.

TIP

- For important notes on exporting, see “Appendix”.
  Notes on T2 export►P223
- TWF file is a file in the ZIP format. If you change the extension of the TWF file to “*.zip” and extract it with software for ZIP, you can extract it as a media file.
- You can send/receive playlists and clips directly from T2 to other T2 via FTP.
  Transferring a file to other T2►P73

1 Display the contents in the [Bin] tab.

Displaying the [Bin] tab►P79

2 Select an item, tap [Export], and then tap [Export in T2 Format (TWF Files)...].

A message related to export to other T2 appears. Read the message, and then tap [OK].
The Export dialog box appears.
Export dialog box►P71

3 In the export dialog box, tap [Select Export Folder], select a folder, and tap [OK].

4 Tap [Start].

Export starts. You can check the progress in the transfer screen.
Checking the transfer status►P67

Transferring a file to other T2

Overview of file transfer function from T2 to T2

You can transfer media files from T2 to other T2 via FTP. If you export media files from T2 (source) to the FTP server of T2 (destination), you can use the files from the [Bin] tab on T2 (destination) without import operations.

Configuring the FTP server settings of T2 (destination)

The procedure to make settings for the FTP server of T2 (destination) is described in this part.

TIP

- Set T2 (destination) to be used as the FTP server beforehand. Perform steps 1 to 8 in "Sending/receiving files to T2" on T2 (destination).
  Sending/receiving files to T2►P75

1 Tap [Config.].

You can operate it from the bin view, 1ch view, 3ch view, and transfer screen.

2 Tap [General], and then tap the [FTP] tab.

3 Tap [Add...].

The FTP destination setting dialog box appears.
FTP destination setting dialog box►P175

4 Configure the FTP server settings of T2 (destination), and then tap [OK].

In the export dialog box, you can tap [Select Export Folder] to select the FTP server of T2 (destination).

Exporting a file from T2 to T2

Configure the FTP server settings of T2 (destination) before you perform export operation.

Configuring the FTP server settings of T2 (destination)►P73

The export operation will be easier if the format for the exported file and other setting items have been set beforehand.

Transfer settings►P192

Make settings in the setting screen according to the environment in use.

Settings►P168

TIP

- For more information about the file formats that can be exported, see "Appendix".
  Output format►P222
- For important notes on exporting, see "Appendix".
  Notes on T2 export►P223

1 Display the contents in the [Bin] tab.

Displaying the [Bin] tab►P79

2 Select an item and tap [Export], and then tap [Export Media Files...] or [Export in T2 Format (TWF Files)...].

NOTE

- Playlists or clips composed of multiple files cannot be exported as the original formats. Export them in the T2 format.

A message related to export or a message related to export to other T2 appears. Read the message, and then tap [OK].
The Export dialog box appears.

Export dialog box►P71

3 If necessary, tap [Config.] to set the file format after conversion.

- If conversion is not necessary, you do not need to change the settings in the setting screen. Proceed to step 4.
- To export a Grass Valley HQ AVI file to be converted to MXF (XDCAM format), tap [AVI] and check [Execute transcoding when exporting AVI file.]. Make settings in [Advanced AVI transcoding settings], and tap [OK].
  Transfer – AVI settings►P197

- To export a playlist, tap the [Playlist] tab. From the [File format after export:] list, select a post-convert format and then tap [OK].
  Transfer – Playlist settings►P203

4 In the export dialog box, tap [Select Export Folder].

5 Tap [FTP Server], select the FTP server of T2 (destination), and then tap [OK].

6 Tap [Start].

Export starts. You can check the progress in the transfer screen.
Checking the transfer status►P67

Sending/receiving files to T2

You can use FTP server to connect devices or edit terminals to your T2 and upload/download files.

NOTE

- For the following format files, only single files can be uploaded/downloaded.
  - XDCAM: MXF single file of XDCAM format only
  - XDCAM EX: Single file of XDCAM EX format only (*.mp4, *.avi)
  - GF: MXF single file of GF format only
- When uploading files to T2 via FTP, if [File format after import:] is set to [AVI(HQ)] for the transfer setting of each format, the files will be converted to Grass Valley HQ AVI after uploaded.
  Transfer settings►P192
- If you want to use Japanese for file names, you must set the character set of file names to UTF-8 on the FTP client side beforehand. Correct file names cannot be displayed if the character sets do not match. The configuration method depends on your software. Refer to the help etc.

1 Tap [Config.].

You can operate it from the bin view, 1ch view, 3ch view, and transfer screen.

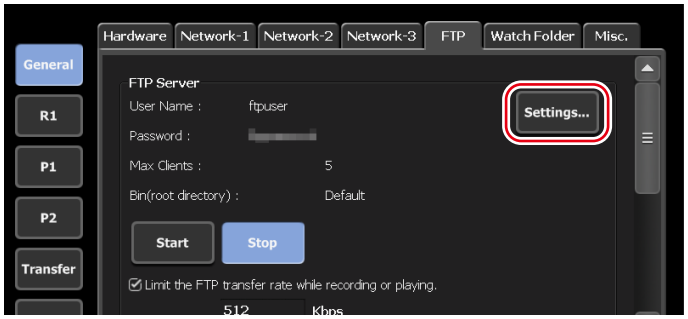
2 Tap [General], and then tap the [Network-1] tab or [Network-2] tab.

3 Configure the IP address and DNS server address.

General – Network-1/Network-2 settings►P170

4 Tap the [FTP] tab.

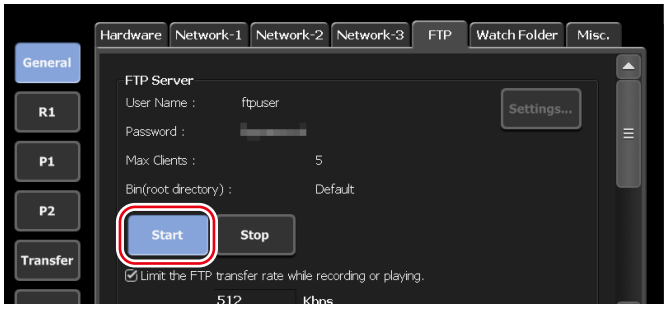
5 Tap [Settings...].



The dialog box for FTP setting of T2 appears.
FTP setting dialog box for T2►P175

6 Configure the FTP server settings of T2, and then tap [OK].

7 Tap [Start].



8 Tap [OK].

9 Access your T2 from a client.

Enter the IP address you configured in [Network-1] or [Network-2] and the user name and password you configured in the dialog box for FTP setting of T2, and connect to your T2 via FTP.

10 Upload or download data.

NOTE

- When using the FTP client where disconnection cannot be made explicitly such as Windows Explore, connection may be terminated due to the restriction of the simultaneous connection of clients. In such a case, tap [General] -> the [FTP] tab on the setup screen, and tap [Stop], and then tap [Start] again.
  [FTP] tab►P173

NOTE

- Depending on the FTP client, files may be transferred with multiple connections simultaneously. When using such an FTP client, make sure that the simultaneous connection of clients does not exceed the [Max Clients:] value set in the FTP setting dialog box of T2.
  FTP setting dialog box for T2►P175
- By default, the system will pause any transfer and conversion during a recording or playback. If you want transfer and conversion to be performed even during a recording or playback, change the setting by [Transfer] -> [Common] on the setting screen. Unchecking [Pause file transfers while recording or playing out.] enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
  Transfer – common settings►P192

Loading and editing T2 contents to other editing software

You can load T2 contents to Adobe Premiere Pro and Apple Final Cut Pro to edit the data. Clips in a bin can be converted to XDCAM format and the converted clips can be downloaded from a client via FTP.

NOTE

- If you want to use Japanese for file names, you must set the character set of file names to UTF-8 on the FTP client side beforehand. Correct file names cannot be displayed if the character sets do not match. The configuration method depends on your software. Refer to the help etc.

1 Perform steps 1 to 8 in "Sending/receiving files to T2".

Sending/receiving files to T2►P75

2 Display the contents in the [Bin] tab.

Displaying the [Bin] tab►P79

3 Select an item, tap [Menu], and then tap [Convert] -> [Convert to MXF(XDCAM)].

4 Tap [Yes].

The conversion starts. You can check the progress in the transfer screen.
Checking the transfer status►P67
The new converted clips will be saved in the same bin as their original

ones.

5 Download the converted clip(s) via FTP from a client PC.

6 Load the downloaded clips to the editing software on the client PC.

Section 7

Contents Management

This section describes the operations for contents management using the bin.

Managing contents in the bin

Displaying the [Bin] tab

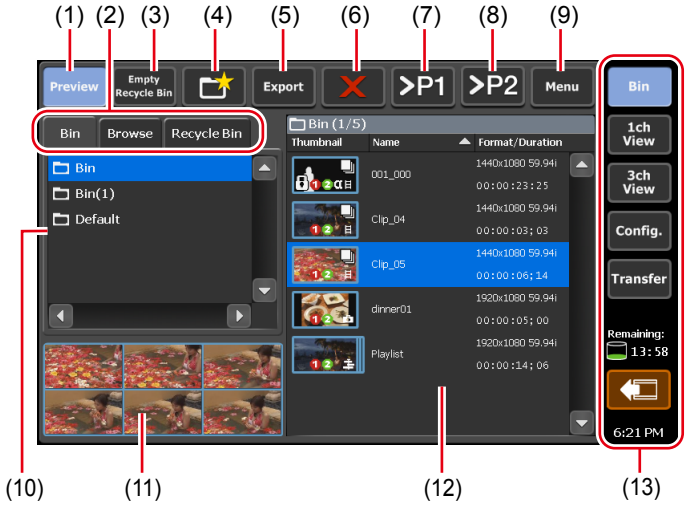
In the [Bin] tab, you can manage the contents loaded to T2 and export contents edited with T2.

1 Tap [Bin].

The bin view appears.

2 Tap the [Bin] tab.

➢ **[Bin] tab**



(1)	**[Preview]**	Switches on/off of the preview (filmstrip).
(2)	**View switching tab**	Switches between [Bin] tab/[Browse] tab/ [Recycle Bin] tab.

(3)	[Empty Recycle Bin]	Deletes all files in the recycle bin. Note that the deleted contents cannot be restored.
(4)	[New Bin]	Creates a new bin.
(5)	[Export]	Exports the selected contents.
(6)	[Delete]	Deletes the selected contents.
(7)	[>P1]	Loads the selected contents to the P1 channel.
(8)	[>P2]	Loads the selected contents to the P2 channel.
(9)	[Menu]	Displays the related menu.
(10)	Bin list	Displays the list of bins. The selected bin is highlighted in blue.
(11)	Filmstrip display	By tapping [Preview] and set it on, displays the contents in filmstrip with six frames.
(12)	Contents list	Displays the list of contents selected in the bin list. The selected item is highlighted in blue.
(13)	1ch view/3ch view/ bin/transfer screen common area	**1ch view/3ch view/bin/transfer screen common area►P52**

Changing bin name

You can change the name of the bin.

1 Select a bin in the [Bin] tab.

Displaying the [Bin] tab►P79

2 Tap [Menu], and then tap [Rename Folder].

3 Enter a name for the bin and tap [OK].

Software keyboard►P119

Deleting a bin

You can delete a bin and the contents in the bin. The deleted bins are moved to the recycle bin.

1 Select a bin in the [Bin] tab.

Displaying the [Bin] tab►P79

2 Tap [Menu], and then tap [Delete Folder].

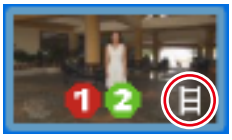
A message appears and the list of contents in the bin is displayed.

3 Tap [Yes].

Contents types and icons

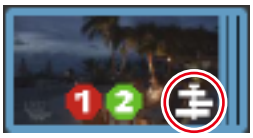
The icons that indicate the contents types and common icons, and icons displayed regardless of the contents types are described in this section.

➢ Clip



➢ Still image clip

➢ Playlist



➢ Common icons

(1)	**Pairing**	Indicates that pairing is set.
(2)	**Used in playlist**	Indicates that the contents is used in the playlist.
(3)	**Lock**	Indicates that the item is locked.
(4)	**Available number of times of recording while playing**	"1" indicates that another source can be recorded in the R1 channel while the contents are played back. "0" indicates that another source cannot be recorded in the R1 channel while the contents are played back.
(5)	**Available number of times of simultaneous playing**	"2" indicates that another contents can be played back simultaneously in the P1/P2 channel while the contents are played back. "1" indicates that another contents cannot be played back simultaneously in the P1/P2 channel while the contents are played back.
(6)	**Containing alpha channel**	Indicates that the contents have transparency information.

Moving contents to another bin

You can move the contents in the bin to another bin.

1 Select the bin in the [Bin] tab and display the contents.

Displaying the [Bin] tab►P79

2 Select an item, tap [Menu], and then tap [Move].

3 Select the destination bin and tap [OK].

Changing the display of contents list

You can switch the display of the contents list between icon display and text display.

1 Tap [Menu], and then tap [View].

2 Tap [Icon View] or [Text View].

Checking the properties of the contents

The procedure to check the properties of the clips or playlists in the bin is described in this part.

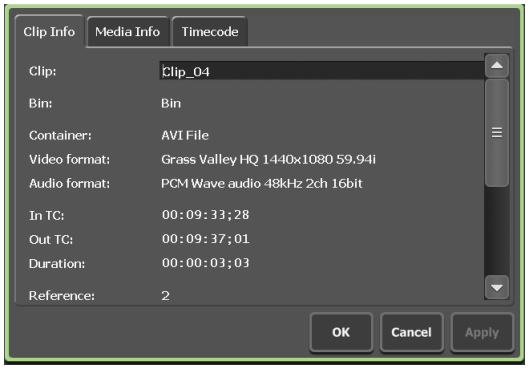
1 Select the bin in the [Bin] tab and display the contents.

Displaying the [Bin] tab►P79

2 Select an item, tap [Menu], and then tap [Properties].

The properties of contents are displayed.

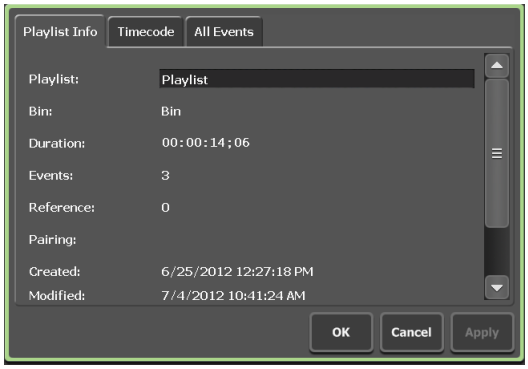
➢ Clip properties



[Clip Info] tab	Displays the clip information. You can check the clip name, format, In/Out points timecode, length, alpha channel presence, date of creation, etc. Tapping the entry area allows to change the clip name and audio gain. (For still images, the length can be changed.) Checking [Locked] locks the clip from editing.

[Media Info] tab	The information of media file is displayed. You can check the file path, clips referenced to the media file, and the number of reference clips, size, In/Out points timecode, etc. Tapping [Details...] displays the list of clips referenced to the media file and the number of reference clips.
[Timecode] tab	Specifies starting timecode. To use the starting timecode of a media file, select [Source]. To specify a starting timecode, select [Specify Start Time], tap the entry area, and enter timecode.

➢ Playlist properties



[Playlist Info] tab	Displays the playlist information. You can check the playlist name, bin name where the playlist is stored, format, length, alpha channel presence, date of creation, etc. Tapping the entry area allows to change the playlist name and audio gain. Checking [Locked] locks the playlist from editing.
[Timecode] tab	Specifies starting timecode. **[Source]** Uses the starting timecode of the media file. **[Specify Start Time]** Specifies a desired starting timecode. Tap the entry area and enter a desired timecode. **[According to event setting]** Uses the timecode set in each event in the playlist.

[All Events] tab	Updates the settings of effect for event starting (start effects) and actions or effects for event ending (end effects) of all events in the playlist. **Updating playlist effect settings►P112**

3 Tap [OK].

Releasing pairing of contents

You can release the pairing of contents.
For pairing of contents, refer to "Sync playback of contents (Sync mode)".
Sync playback of contents (Sync mode)►P102

1 Select the bin in the [Bin] tab and display the contents.

Displaying the [Bin] tab►P79

2 Select an item, tap [Menu], and then tap [Unpairing].

Converting contents to other formats

You can convert contents to other formats.
A playlist can be converted to a single clip (media file).

NOTE
- If a playlist is converted to a single clip, the effect set to the playlist is disabled.

TIP
- If you want to convert a Grass Valley HQ AVI file to an MXF (XDCAM format) file, set the format details in the setting screen beforehand.
  Transfer – AVI settings►P197
- Playlists are converted with the following features.
  - If several formats are contained, they are converted in one file.
  - A timecode set in a playlist or event properties can be retained in each frame of the converted file.
  - When exporting files in Grass Valley HQ AVI format, the profile (size and frame rate) of the converted file is same as the profile of the playlist.
  - When exporting files in MXF format (XDCAM), files are converted according to the settings of [Advanced AVI transcoding settings] in [Transfer] -> [AVI] on the setting screen.
  - The audio gain set for the event in the playlist is maintained in the converted clip.
  - Audio is converted into PCM 48kHz 24bit 8ch.
- You cannot convert a playlist that includes a place holder event.

1 Select the bin in the [Bin] tab and display the contents.

Displaying the [Bin] tab►P79

2 Select an item, tap [Menu], and then tap [Convert] -> [Convert to (converted format)].

3 Tap [Yes].

The conversion starts. You can check the progress in the transfer screen.
Checking the transfer status►P67
The new converted clips will be saved in the same bin as their original ones.

NOTE

- By default, the system will pause any transfer and conversion during a recording or playback. If you want transfer and conversion to be performed even during a recording or playback, change the setting by [Transfer] -> [Common] on the setting screen. Unchecking [Pause file transfers while recording or playing out.] enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
  Transfer – common settings►P192

Checking the recycle bin

Displaying the [Recycle Bin] tab

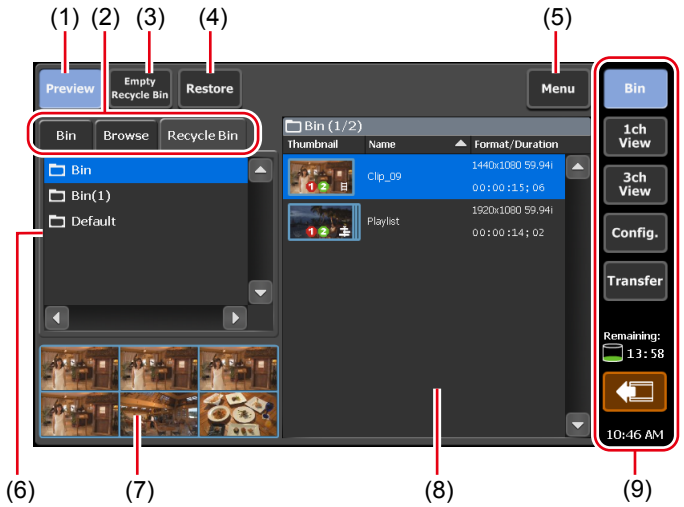
In the [Recycle Bin] tab, you can restore the deleted contents and completely delete the files in the recycle bin.

1 Tap [Bin].

The bin view appears.

2 Tap the [Recycle Bin] tab.

➢ [Recycle Bin] tab



(1)	**[Preview]**	Switches on/off of the preview (filmstrip).
(2)	**View switching tab**	Switches between [Bin] tab/[Browse] tab/ [Recycle Bin] tab.
(3)	**[Empty Recycle Bin]**	Deletes all files in the recycle bin. Note that the deleted contents cannot be restored.
(4)	**[Restore]**	Restores contents to the original bin. When restoring a playlist, if clips linked to the playlist are also in the recycle bin, the clips are restored at the same time.
(5)	**[Menu]**	Displays the related menu.
(6)	**Recycle bin folder list**	Displays the list of folders in the recycle bin.
(7)	**Filmstrip display**	By tapping [Preview] and set it on, displays the contents in filmstrip with six frames.
(8)	**Contents list**	Displays the list of contents in the folder selected in the recycle bin folder list.
(9)	**1ch view/3ch view/ bin/transfer screen common area**	**1ch view/3ch view/bin/transfer screen common area►P52**

Backing up all data to other T2 (full sync backup)

Overview of full sync backup function

T2 data (media files and database) can be synchronized to other (multiple) T2 on the network. T2 (slave) data on the sync destination is initialized and they are completely synchronized to T2 (master) data.
To synchronize data, set the sync destination T2 (slave) to the slave mode (step 1), and then set the sync source T2 (master) to the master mode. (step 2)

Step 1: Setting T2 on the sync destination (slave) to the slave mode

NOTE
- Set the remote mode (R1-remote mode/P1-remote mode/P2-remote mode) to off on both T2 (master and slave) beforehand. (You cannot switch the remote mode to on and off while transferring files.)
- Synchronization is not available between T2 devices that have different database versions. Database version will be changed by such an event as software update.

1 On the sync destination T2, tap [Bin] or [1ch View].

2 Tap [Menu], and then tap [Tools] -> [T2 to T2 Sync backup...].

If contents are being captured or loaded in the R1/P1/P2 channel, a message appears asking whether to unload the contents. Tap [OK] to unload the clip.

3 In [Operating mode] on the [T2 to T2 Sync backup] dialog box, select [Slave mode] and tap [Close].

T2 on the sync destination (slave) is set to the slave mode.
To sync data to multiple T2 (slave), repeat steps 1 to 3 on all of the T2 (slave).

Step 2: Setting T2 on the sync source (master) to the master mode for data sync

1 On the sync source T2, tap [Bin] or [1ch View].

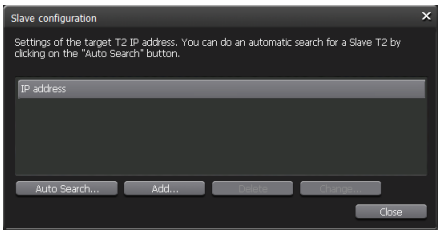
2 Tap [Menu], and then tap [Tools] -> [T2 to T2 Sync backup...].

If contents are being captured or loaded in the R1/P1/P2 channel, a message appears asking whether to unload the contents. Tap [OK] to unload the clip.

3 In [Operating mode] on the [T2 to T2 Sync backup] dialog box, select [Master mode] and tap [Slave configuration...].

T2 on the sync source (master) is set to the master mode.
The number of T2 set to the slave mode is displayed in [Slave count:].

4 In the [Slave configuration...] dialog box, set the IP address of T2 set to the slave mode.



- Tap [Auto Search...] to search for T2 set to the slave mode on the network. Select an IP address on the [Search Results] dialog box, and then tap [Add ALL].
- To set an IP address manually, tap [Add] and enter an IP address.

5 Tap [Close].

6 In the [T2 to T2 Sync backup] dialog box, tap [Start Sync].

7 A message appears. Tap [OK].

The synchronization starts. You can check the file transfer status on the upper progress bar, and the whole status on the lower progress bar.
If you stop synchronization in the middle, tap [Stop]. You can also stop synchronization from T2 set to the slave mode.

TIP

- If data synchronization has been stopped forcibly by such an event as the power off of T2, contents may be displayed with the following thumbnail. Such contents cannot be used.

- If synchronization has been stopped and started again, files that are already transferred will be skipped.

Section 8

Playing/Editing

This section describes operations to play contents in the P1/P2 channel and to edit playlists.

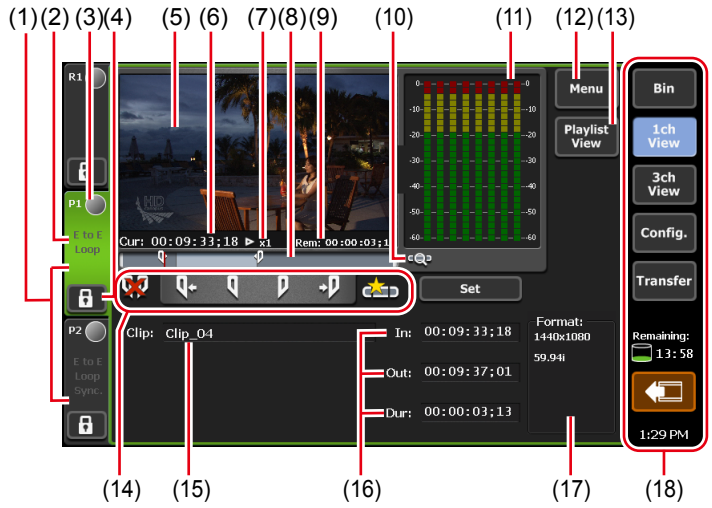
Displaying P1/P2 channel in 1ch view

In the 1ch view of the P1/P2 channel, you can perform operations regarding contents editing.

1 Press the [P1] button (or [P2] button).

The display switches to the 1ch view of the P1 channel (or P2 channel) and the [P1] button (or [P2] button) lights in green.
You can also switch by tapping [1ch View] and then tapping the P1 channel tab (or P2 channel tab).
If the clip is loaded to the P1 channel (or P2 channel), clip view is displayed. And if a playlist is loaded, playlist view is displayed.

➢ P1/P2 channel (clip view) – 1ch view



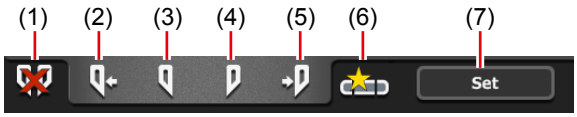
* (2) to (18) are common in P2 channel.

(1)	**P1 channel tab/P2 channel tab**	By tapping, selects and highlights the P1 channel (or P2 channel).

(2)	**Playback mode**	Indicates the current playback mode (sync mode, E to E mode, loop playback mode) of the P1 channel (or P2 channel) in white characters. By tapping, also switches the playback mode. **Switching playback mode►P101**
(3)	**Status**	Indicates the playback progress status.
(4)	**[Locked]**	Locks P1 channel (or P2 channel) operations. While the operations are locked, [Locked] and [P1] (or [P2] button) buttons light in red. Tapping it again releases the lock.
(5)	**Preview**	Displays the video currently played back. Tapping the preview displays in the full screen view. If a clip is not loaded, displays the output profile of the channel on the upper left.
(6)	**[Cur:]**	Indicates the current timecode.
(7)	**Playback speed**	Indicates the current playback speed (times).
(8)	**Scrubbing bar**	Indicates the playback progress status and markers of set In/Out points.
(9)	**[Rem:]**	Indicates the timecode of the remaining time.
(10)	**[Zoom]**	Switches the display scale of the scrubbing bar. Tapping it displays [Zoom] in red, and displays the In-Out points of the clip as the whole scale. Tapping it again returns the display to the original scale and displays the whole clip.
(11)	**Audio level display**	Displays output audio level.
(12)	**[Menu]**	Displays the related menu.
(13)	**[Playlist View]**	Switches to the playlist view.
(14)	**Operation buttons**	**Operation buttons of P1/P2 channel (clip view)►P92**

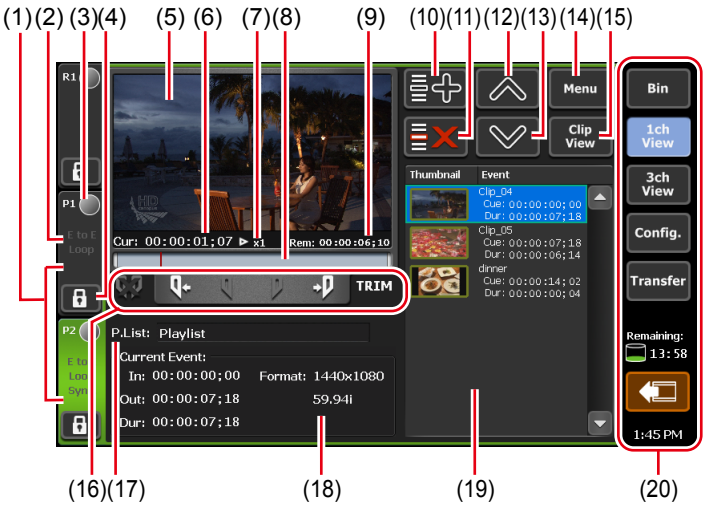
(15)	[Clip:]	Indicates the name of the loaded clip. Tapping the entry area allows to change the clip name. **Software keyboard►P119**
(16)	[In:]/[Out:]/[Dur:]	Indicates the timecode of In/Out points and duration. Tapping the entry area allows to set the In and Out points or duration. **Software keypad – Timecode►P120**
(17)	[Format:]	Indicates the video size of the clip and frame rate.
(18)	1ch view/3ch view/ bin/transfer screen common area	**1ch view/3ch view/bin/transfer screen common area►P52**

➢ Operation buttons of P1/P2 channel (clip view)



(1)	[Clear (In/Out)]	Clears In/Out points set on the clip.
(2)	[Cue(In)]	Moves to the In point of the clip.
(3)	[Mark(In)]	Sets In point to the current position. After In point has been set, the In point marker appears on the scrubbing bar.
(4)	[Mark(Out)]	Sets Out point to the current position. After Out point has been set, the Out point marker appears on the scrubbing bar.
(5)	[Cue(Out)]	Moves to the Out point of the clip.
(6)	[Create Subclip]	Creates a sub clip between the set In-Out points. **Creating a sub clip between In-Out points (highlight)►P106**
(7)	[Set]	Trims the clip between the set In-Out points. **Trimming a clip between the set In-Out points►P105**

➢ P1/P2 channel (playlist view) – 1ch view



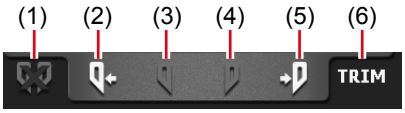
*(2) to (20) are common in P2 channel.

(1)	**P1 channel tab/P2 channel tab**	By tapping, selects and highlights the P1 channel (or P2 channel).
(2)	**Playback mode**	Indicates the current playback mode (sync mode, E to E mode, loop playback mode) of the P1 channel (or P2 channel) in white characters. By tapping, also switches the playback mode. **Switching playback mode►P101**
(3)	**Status**	Indicates the playback progress status.
(4)	**[Locked]**	Locks P1 channel (or P2 channel) operations. While the operations are locked, [Locked] and [P1] (or [P2] button) buttons light in red. Tapping it again releases the lock.
(5)	**Preview**	Displays the video currently played back. Tapping the preview displays in the full screen view. If a playlist is not loaded, displays the output profile of the channel on the upper left.
(6)	**[Cur:]**	Indicates the current timecode of the playlist.

(7)	**Playback speed**	Indicates the current playback speed (times).
(8)	**Scrubbing bar**	Indicates the playback progress status and markers of set In/Out points.
(9)	**[Rem:]**	Indicates the timecode for the remaining time of event or the timecode for the remaining time of whole playlist. The timecode to be displayed can be changed by [Playlist Remain TC:] in [P1] (or [P2]) -> the [Monitor & Remote] tab on the setting screen. **[Monitor & Remote] tab►P189**
(10)	**[Add Event]**	Adds an event to the playlist. **Creating a playlist►P107**
(11)	**[Delete Event]**	Deletes the event selected in the event list.
(12)	**[Move Up]**	Moves up the event selected in the event list.
(13)	**[Move Down]**	Moves down the event selected in the event list.
(14)	**[Menu]**	Displays the related menu.
(15)	**[Clip View]**	Switches to the clip view.
(16)	**Operation buttons**	**Operation buttons of P1/P2 channel (playlist view)►P95**
(17)	**[P.List:]**	Indicates the name of the loaded playlist. Tapping the entry area allows to change the playlist name. **Software keyboard►P119**
(18)	**[Current Event:]**	Displays the information of the event being played. **[In:]/[Out:]/[Dur:]** Indicates the timecode of In/Out points and the length of the event (duration). **[Format:]** Indicates the video size and frame rate.

(19)	**Event list**	Displays the list of events in the playlist. The selected event is displayed with a blue frame. The event being played is highlighted in blue.
(20)	**1ch view/3ch view/ bin/transfer screen common area**	**1ch view/3ch view/bin/transfer screen common area►P52**

➢ Operation buttons of P1/P2 channel (playlist view)



(1)	**[Clear (In/Out)]**	In the TRIM mode, clears In/Out points set on the event to cancel the TRIM mode.
(2)	**[Cue(In)]**	Moves to the In point of the event.
(3)	**[Mark(In)]**	In the TRIM mode, sets In point to the current position. After In point has been set, the In point marker appears on the scrubbing bar.
(4)	**[Mark(Out)]**	In the TRIM mode, sets Out point to the current position. After Out point has been set, the Out point marker appears on the scrubbing bar.
(5)	**[Cue(Out)]**	Moves to the Out point of the event.
(6)	**[TRIM]**	Switches to the TRIM mode. You can edit the In/Out points of the event selected in the event list. **Trimming an event►P109**

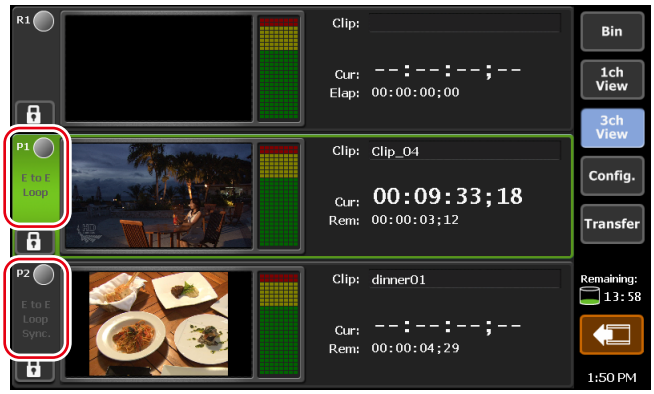
Selecting P1/P2 channel in 3ch view

In 3ch view, you can view three channels, the video recorded in the R1 channel and the clip or playlist played in the P1/P2 channel simultaneously. In 3ch view of P1/P2 channel, you can use the operation buttons and jog/shuttle on the lower part of the touch screen LCD, to play or to switch playback modes.

1 Tap [3ch View].

The display switches to 3ch view.

2 Tap the P1 channel tab (or P2 channel tab).



P1 channel (or P2 channel) is selected and highlighted. The playback operation to the selected channel becomes valid.
If the clip is loaded to the P1 channel (or P2 channel), clip view is displayed. And if a playlist is loaded, playlist view is displayed.

➢ P1/P2 channel (clip view) – 3ch view

*(2) to (9) are common in P2 channel.

(1)	**P1 channel tab/ P2 channel tab**	By tapping, selects and highlights the P1 channel (or P2 channel).
(2)	**Playback mode**	Indicates the current playback mode (sync mode, E to E mode, loop playback mode) of the P1 channel (or P2 channel) in white characters. By tapping, also switches the playback mode. **Switching playback mode►P101**
(3)	**Status**	Indicates the playback progress status.
(4)	**[Locked]**	Locks P1 channel (or P2 channel) operations. While the operations are locked, [Locked] and [P1] (or [P2] button) buttons light in red. Tapping it again releases the lock.

(5)	**Preview**	Displays the video currently played back. If a clip is not loaded, displays the output profile of the channel on the upper left.
(6)	**Audio level display**	Displays output audio level.
(7)	**[Clip:]**	Indicates the name of the loaded clip. Tapping the entry area allows to change the clip name. **Software keyboard►P119**
(8)	**[Cur:]**	Indicates the current timecode.
(9)	**[Rem:]**	Indicates the timecode of the remaining time.

➢ P1/P2 channel (playlist view) – 3ch view

* (2) to (11) are common in P2 channel.

(1)	**P1 channel tab/ P2 channel tab**	By tapping, selects and highlights the P1 channel (or P2 channel).
(2)	**Playback mode**	Indicates the current playback mode (sync mode, E to E mode, loop playback mode) of the P1 channel (or P2 channel) in white characters. By tapping, also switches the playback mode. **Switching playback mode►P101**
(3)	**Status**	Indicates the playback progress status.
(4)	**[Locked]**	Locks P1 channel (or P2 channel) operations. While the operations are locked, [Locked] and [P1] (or [P2] button) buttons light in red. Tapping it again releases the lock.
(5)	**Preview**	Displays the video currently played back. If a playlist is not loaded, displays the output profile of the channel on the upper left.

(6)	**Audio level display**	Displays output audio level.
(7)	**[P.List:]**	Indicates the name of the loaded playlist. Tapping the entry area allows to change the playlist name. **Software keyboard►P119**
(8)	**[Now:]**	Indicates the name of the current event.
(9)	**[Next:]**	Indicates the name of the next event.
(10)	**[Cur:]**	Indicates the current timecode of the playlist.
(11)	**[Rem:]**	Indicates the timecode of the remaining time of event or the timecode of remaining time of whole playlist. The timecode to be displayed can be changed by [Playlist Remain TC:] in [P1] (or [P2]) -> the [Monitor & Remote] tab on the setting screen. **[Monitor & Remote] tab►P189**

Loading contents to P1/P2 channel

The procedure to load the contents in the bin to the P1 channel or P2 channel is described in this part.
Contents loaded to the P1/P2 channel can be performed playback or editing of In/Out points.

1 Select the bin in the [Bin] tab and display the contents.

Displaying the [Bin] tab►P79

2 Select an item and tap [>P1] or [>P2].

The item is loaded to the P1 channel or P2 channel.
If the clip is loaded to the P1 channel (or P2 channel), clip view is displayed. And if a playlist is loaded, playlist view is displayed.

P1/P2 channel (clip view) – 1ch view►P90
P1/P2 channel (playlist view) – 1ch view►P93

TIP
- To unload contents, display the P1 channel (or P2 channel) in 1ch view, tap [Menu], and then tap [Unload].

Playing back video

Playing back with operation buttons

You can play the video of the selected channel using the operation buttons.

1 Press the [Play] button.

Control buttons►P35

During the playback, the [Play] button lights up.

Playing back in variable speed mode (variable playback)

You can play the video of the selected channel in the variable speed mode.

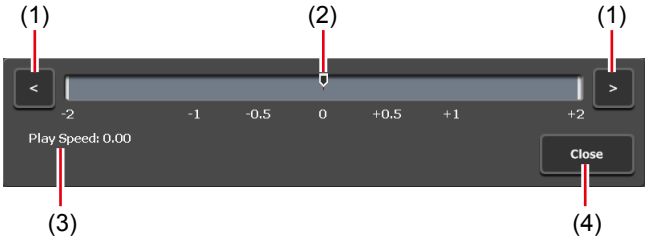
1 Press the [VAR] button.

Control buttons►P35

The mode switches to the variable speed mode and VAR speed control is displayed.

While in the variable speed mode, the [VAR] button lights up.

➢ VAR speed control



(1)	**[<]/[>]**	By every tap, increases or decreases the playback speed by 0.1 time.
(2)	**Speed control bar**	By tapping on the speed control bar, specifies the playback speed within the range of -2 to +2 times.
(3)	**[Play Speed:]**	Indicates the current playback speed.
(4)	**[Close]**	Closes the VAR speed control. Even after closing the VAR speed control, you can perform variable speed playback by operating the jog/shuttle.

2 Press the [Play] button.

3 Tap the speed control bar and move it.

Steps 2 and 3 can also be operated by the jog/shuttle.

Playing back in jog/shuttle mode

You can fast forward or rewind the video of the selected channel using jog/shuttle operations.
The playback speed changes by the operating angle of jog/shuttle.

1 Press the [SHTL/JOG] button.

Control buttons►P35

The mode switches to the jog/shuttle mode and the [SHTL/JOG] button lights up.

2 Turn the jog/shuttle.

Turn to the right to fast forward, and turn to the left to rewind.
Depending on the angle to turn the jog/shuttle, the speed can be switched from 0.13 to 32 times (7 levels) for the right side, and from -0.13 to -32 times (7 levels) for the left side.

TIP • The maximum speed of the shuttle (16 times/32 times) can be changed.
Miscellaneous – Jog/Shuttle settings►P207

Loading and playing back video currently recorded (chasing playback)

The video currently recorded in the R1 channel can be loaded and played on the P1 channel (or P2 channel).
If you only want to load the currently recorded video and do not want to play it back, you do not need to perform steps 1 to 4.

NOTE • This function is only available when the recording format is AVI (Grass Valley HQ).

1 Tap [Config.].

You can operate it from the bin view, 1ch view, 3ch view, and transfer screen.

2 Tap [P1] (or [P2]), and then tap [Video].

P1/P2 – Video settings►P187

3 In [Auto play mode:], tap and check [Auto Play].

4 Tap [OK].

5 Press the [P1] button (or [P2] button).

6 Switch to the clip view.

If the playlist view is displayed, tap [Clip View] to switch the display.

7 Tap [Menu], and then tap [Now recording].

The video currently recorded in the R1 channel are loaded to the P1/P2 channel and played back automatically.

Switching playback mode

Outputting currently recorded video with active through (E to E mode)

If the E to E mode is set to on in the P1 channel (or P2 channel), you can output video currently recorded in the R1 channel to the P1 channel (or P2 channel) with active through.

NOTE

- The video format of the channel set to the E to E mode and that of the R1 channel must be the same.
  R1 – Input Settings►P182
  P1/P2 – Video settings►P187

1 Tap the P1 channel tab (or P2 channel tab).

2 Tap the playback mode, and then tap [E to E] from the menu.

[E to E] in the menu is checked and [E to E] in the P1 channel tab (or P2 channel tab) is displayed in white characters.

3 On the channel selected in step 1, stop the playback of contents or unload it.

The video currently recorded is output when the playback of contents has been stopped or loading of contents is not executed.

TIP

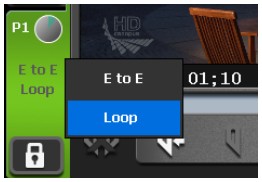
- You can also perform the same operation by tapping [Menu] in the 1ch view of P1 channel (or P2 channel), and then tapping [Playout Mode] -> [E to E].

Loop playback of contents (Loop mode)

If the Loop mode is set to on in the P1 channel (or P2 channel), you can perform loop playback of the contents played on the P1 channel (or P2 channel).

1 Tap the P1 channel tab (or P2 channel tab).

2 Tap the playback mode, and then tap [Loop] from the menu.



[Loop] in the menu is checked and [Loop] in the P1 channel tab (or P2 channel tab) is displayed in white characters.

TIP

- You can also perform the same operation by tapping [Menu] in the 1ch view of P1 channel (or P2 channel), and then tapping [Playout Mode] -> [Loop].

3 Play the contents selected in step 1.

Sync playback of contents (Sync mode)

By setting pairing on two contents and set sync mode on, the playback status of the two contents can be synchronized.
You can use this function in such cases as when you want to synchronize and play the L side and R side of a video.

NOTE

- The media files in a removable media cannot be set to be paired.
- A playlist and a clip cannot be set to be paired.
- The E to E mode and sync mode cannot be set to on at the same time.
- In sync mode, only the following operations are available.
  - Normal or variable speed playback
  - Stopping playback
  - Forwarding/rewinding frame by frame
  - Moving to an In/Out point

1 Load contents to the P1 channel.

Loading contents to P1/P2 channel►P98

2 Load the contents to be synchronized with the contents loaded in step 1 to P2 channel.

3 Tap the P2 channel tab.

4 Tap the playback mode, and then tap [Sync] from the menu.

[Sync] in the menu is checked and [Sync.] in the P2 channel tab is displayed in white characters.

TIP

- You can also perform the same operation by tapping [Menu] in the 1ch view of P2 channel, and then tapping [Playout Mode] -> [Sync].
- If the output settings of the P1 channel and P2 channel are different, the setting of the P2 channel will be automatically changed to be the same as that of the P1 channel.

5 A message appears. Tap [Yes].

Pairing are set to the contents loaded on the P1 channel and the contents loaded on the P2 channel.

6 Select the P1 channel and press the [Play] button.

Contents loaded on the P2 channel is played back, being synchronized with the contents loaded on the P1 channel.

TIP

- To release the pairing of contents, operate in the [Bin] tab. **Releasing pairing of contents►P85**

Playback of contents with alpha channel (Fill/Key signal output mode)

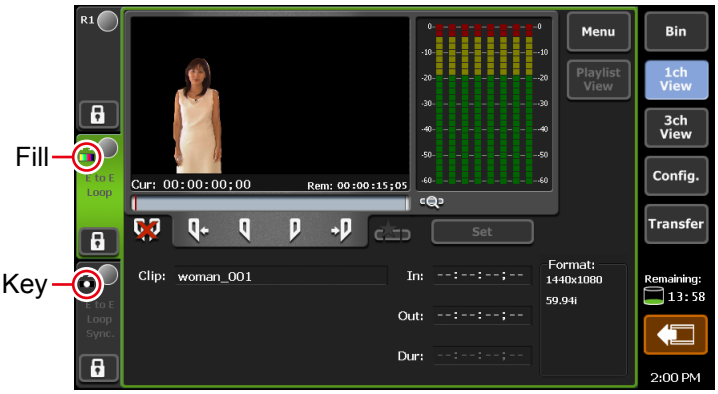
You can play contents with transparency information (alpha channel).

1 Load the contents with alpha channel to the P1 channel (or P2 channel).

Loading contents to P1/P2 channel►P98

The mode switches to the Fill/Key signal output mode. Fill is output to the loaded channel, and Key is output to the other channel.

The icons indicating Fill and Key appear on the P1 channel tab and P2 channel tab respectively.



2 Play the contents on the channel where Fill is output.

Playback operations of clips with alpha channel can be performed only on the Fill side channel.

When you play a playlist that contains clips with alpha channel, the system enters the Fill/Key signal output mode and the Key side channel will output a black screen for normal clip playback.

TIP

- The Fill/Key signal output and normal modes will be switched automatically while playing a playlist. The video may be disrupted due to the output signal loss when the modes are switched, however, this is not a system failure.
- The following operations are available while a clip with alpha channel is loaded.
  - Moving to an In/Out point
  - Setting an In/Out point
  - Creating a sub clip (you cannot create a sub clip of a still image clip with alpha channel)
  - Moving to the first frame, frame reverse, stop, playback, frame forward, moving to the last frame, fast forward, rewind, and variable speed playback
  - Scrubbing bar operation (workstation mode only)
  - Setting a fade in effect (applied to the Key side)/fade out effect (applied to the Key side)/actions (pause, loop) to an event in a playlist
- The following operations are not available while a clip with alpha channel is loaded.
  - Switching to the TRIM mode in the playlist view
- You can also play clips with alpha channel using the remote control with AMP commands.

Editing a clip

Setting In and Out points to a clip

You can set In and Out points to a clip.
If In and Out points have been set to a clip, you can move to the set In point or Out point, trim between In-Out points, or save it as a sub clip.

1 Load a clip to the P1 channel (or P2 channel).

Loading contents to P1/P2 channel►P98

2 Play a clip and tap [Mark(In)] when you want to set the In point.

Operation buttons of P1/P2 channel (clip view)►P92

The In point is set to the current position. A marker appears in the In point position on the scrubbing bar.

3 Play a clip and tap [Mark(Out)] when you want to set the Out point.

The Out point is set to the current position. A marker appears in the Out point position on the scrubbing bar.

TIP

- You can also specify In and Out points with the timecode. Tap the entry area of [In:] and [Out:], and enter the timecode.
  P1/P2 channel (clip view) – 1ch view►P90

Trimming a clip between the set In-Out points

If set In and Out points are fixed, you can trim a clip between the In/Out points.

1 Set In and Out points to a clip.

Setting In and Out points to a clip►P105

2 Tap [Set].

Operation buttons of P1/P2 channel (clip view)►P92

The information of the In-Out points for the clip is updated with the set In and Out points. The space between the In-Out points is displayed in a pale white bar.

TIP

- Even when a clip is trimmed between In-Out points, the trimmed range of the video will not be deleted.
- To change the trimmed video between In-Out points, set In and Out points to the clip again, and then tap [Set].

Creating a sub clip between In-Out points (highlight)

You can create a sub clip between set In-Out points and save it as a separate clip.

1 Set In and Out points to a clip.

Setting In and Out points to a clip►P105

2 Tap [Create Subclip].

Operation buttons of P1/P2 channel (clip view)►P92

A sub clip including video between the set In and Out points is created and saved in the same bin as the original clip.

Checking clip properties

You can check the properties of the clip loaded to the P1/P2 channel.

1 Tap [Menu] in the clip view, and then tap [Properties].

The properties of the clip are displayed.

Clip properties►P83

Changing a clip name

You can change the name of the clip loaded to the P1/P2 channel.

1 Tap [Menu] in the clip view, and then tap [Rename].

2 Enter a name and tap [OK].

Software keyboard►P119

Updating thumbnails of clips

You can update the thumbnail images of the clips displayed on the contents list in the bin view to the image of the current position.

1 Tap [Menu] in the clip view, and then tap [Set Thumbnail Frame].

Editing a playlist

Creating a playlist

You can create a playlist including multiple contents.
To create a playlist, add contents to the playlist view on the P1/P2 channel.
The contents added on the playlist are called event.
The procedure to create a new playlist is described in this part.

TIP

- You can add a playlist to another playlist as an event. The added playlist is called playlist event.
  If you add a playlist which contains a playlist event to another playlist, a message appears. Select an adding method of a playlist event.

1 Press the [P1] button (or [P2] button).

2 Switch to the playlist view.

If the clip view is displayed, tap [Playlist View] to switch the display.

3 Tap [Add Event].

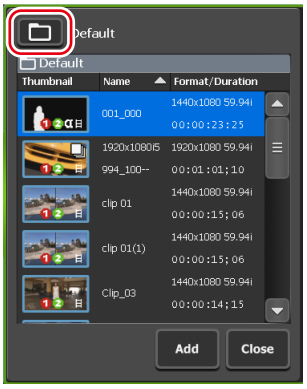
P1/P2 channel (playlist view) – 1ch view►P93

The dialog box to add an event appears.

TIP

- To add contents to an existing playlist, select an event immediately before the position to add the contents and tap [Add Event].

4 Tap [Select Bin].



5 Select a bin that includes the contents to be added to the playlist and tap [OK].

6 Select contents in the dialog box to add an event and tap [Add].

7 Repeat steps 4 to 6.

8 Tap [Close].

The contents are registered as events in the playlist by the added order.
Playlists are saved in the bin selected in step 5 with the name "Play (serial number)".

Deleting an event from a playlist

You can delete an event from a playlist.
Even after events have been deleted from the playlist, the original contents will not be deleted.

1 Tap and select an event to delete in the playlist view.

The selected event is displayed with a blue frame.

2 Tap [Delete Event].

P1/P2 channel (playlist view) – 1ch view►P93

Playing back a playlist

You can load a playlist to the P1/P2 channel and play it.

1 Load a playlist to the P1 channel (or P2 channel).

Loading contents to P1/P2 channel►P98

When you load a playlist to the P1/P2 channel, the playback position automatically moves to the In point of the first event.
Double-tapping a desired event can move the playback position to the In point of the event.

2 Press the [Play] button.

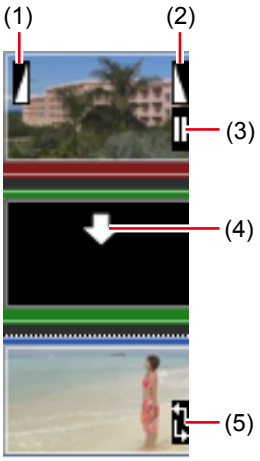
Playing back video►P99

The event being played is highlighted in blue.

Icons for events

The icons displayed in the thumbnails are described in this part.

➢ Event icons



(1)	**Fade in**	Indicates that fade in is set.
(2)	**Fade out**	Indicates that fade out is set.
(3)	**Pause**	Indicates that the playback stop operation of the event is set to pause.
(4)	**Place holder**	Indicates that a place holder is set. **Adding place holder to playlist►P115**
(5)	**Loop playback**	Indicates that loop playback is set.

Trimming an event

In the TRIM mode, you can trim an event by setting In and Out points to the event.

1 Double-tap and select an event to trim in the playlist view.

2 Tap [TRIM].

The mode switches to the TRIM mode.

3 Play an event and tap [Mark(In)] when you want to set the In point.

Operation buttons of P1/P2 channel (playlist view)►P95

The In point is set to the current position. A marker appears on the In point position on the scrubbing bar.

4 Play an event and tap [Mark(Out)] when you want to set the Out point.

The Out point is set to the current position. A marker appears on the Out point position on the status bar.

5 Tap [TRIM].

The TRIM mode exits, and the event is trimmed between the set In-Out points.

Setting effects on an event

You can set effects at the event start point (start effect) or the effect at the event end point (end effect).

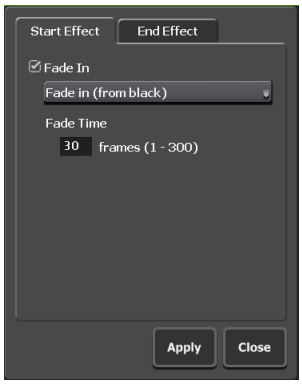
1 Tap and select an event in the playlist view.

The selected event is displayed with a blue frame.

2 Tap [Menu], and then tap [Event Effect].

3 To set a start effect, tap the [Start Effect] tab and set each item.

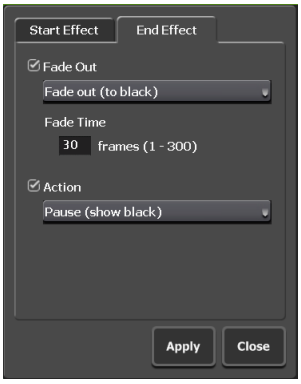
➢Event – [Start Effect] tab



[Fade In]	To set a fade in effect, check [Fade In] and select an action from the list. • [Fade in (from black)] Sets a fade in effect from a black screen. • [Fade in (from white)] Sets a fade in effect from a white screen. Tap the entry area of [Fade Time] and enter the number of frames from the start point to the end point.

4 To set an end effect, tap the [End Effect] tab and set each item.

➢ Event – [End Effect] tab



[Fade Out]	To set a fade out effect, check [Fade Out] and select an action from the list. • [Fade out (to black)] Sets a fade out effect to a black screen. • [Fade out (to white)] Sets a fade out effect to a white screen. Tap the entry area of [Fade Time] and enter the number of frames from the start point to the end point.

[Action]	To set an end action for playback, check [Action] and select an action from the list. • [Pause (show black)] Pauses the playback with a black screen displayed. • [Pause (show white)] Pauses the playback with a white screen displayed. • [Pause (last frame)] Pauses the playback with the last frame displayed. • [Pause (next event)] Pauses the playback with the first frame of the next event displayed. • [Pause (show EtoE)] Displays the video input to the R1 channel with active through. • [Loop] Plays back the event in loop.

5 Tap [OK].

TIP • If you set the effects as an event template of playlist, the template setting is applied to newly added events.
General – Miscellaneous settings►P177

Updating playlist effect settings

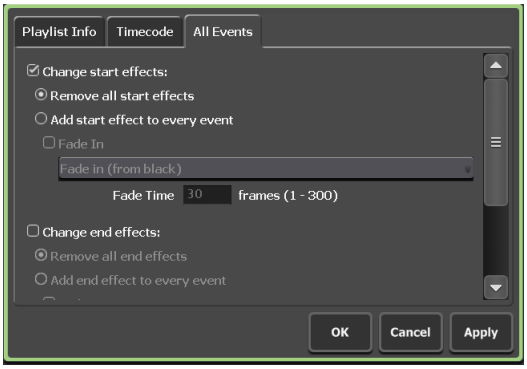
You can collectively set effects for event starting (start effects) and actions or effects for event ending (end effects) to all events in the playlist.
You can also collectively delete effects set to the events.

1 Display the playlist properties.

Checking playlist properties►P117
Checking the properties of the contents►P83

2 Tap the [All Events] tab.

➢ Playlist – [All Events] tab



[Change start effects:]	Check it when you want to update the setting of start effects. **[Remove all start effects]** Deletes start effects set to the event. **[Add start effect to every event]** Updates start effects (fade in) set to the event. To set a fade in effect, check [Fade In] and select an action from the list. • [Fade in (from black)] Sets a fade in effect from a black screen. • [Fade in (from white)] Sets a fade in effect from a white screen. Tap the entry area of [Fade Time] and enter the number of frames from the start point to the end point.

[Change end effects:]	Check it when you want to update the setting of end effects. **[Remove all end effects]** Deletes end effects set to the event. **[Add end effect to every event]** Updates the end effects (fade out or end action for playback) set to the event. To set a fade out effect, check [Fade Out] and select an action from the list. • [Fade out (to black)] Sets a fade out effect to a black screen. • [Fade out (to white)] Sets a fade out effect to a white screen. Tap the entry area of [Fade Time] and enter the number of frames from the start point to the end point. To set an end action for playback, check [Action] and select an action from the list. • [Pause (show black)] Pauses the playback with a black screen displayed. • [Pause (show white)] Pauses the playback with a white screen displayed. • [Pause (last frame)] Pauses the playback with the last frame displayed. • [Pause (next event)] Pauses the playback with the first frame of the next event displayed. • [Pause (show EtoE)] Displays the video input to the R1 channel with active through. • [Loop] Plays back the event in loop.

3 Set each item and tap [OK].

Adding place holder to playlist

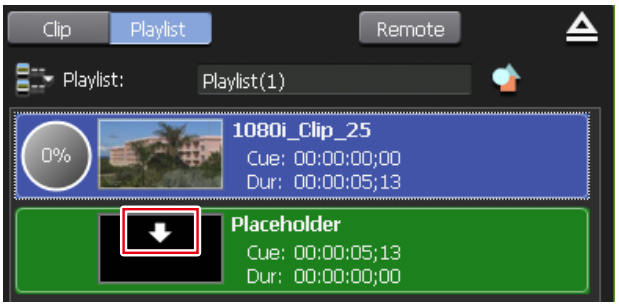
Place holder is the temporary event that can be replaced to a clip event later. The length of the event can be set as desired in event properties.

TIP

- Adding and replacing a place holder event is available only in the workstation mode.

1 Right-click on a desired event and click [Placeholder] -> [Insert into] -> [Before] or [After].

A place holder is added before or after the event, and a down arrow icon is displayed on the place holder.

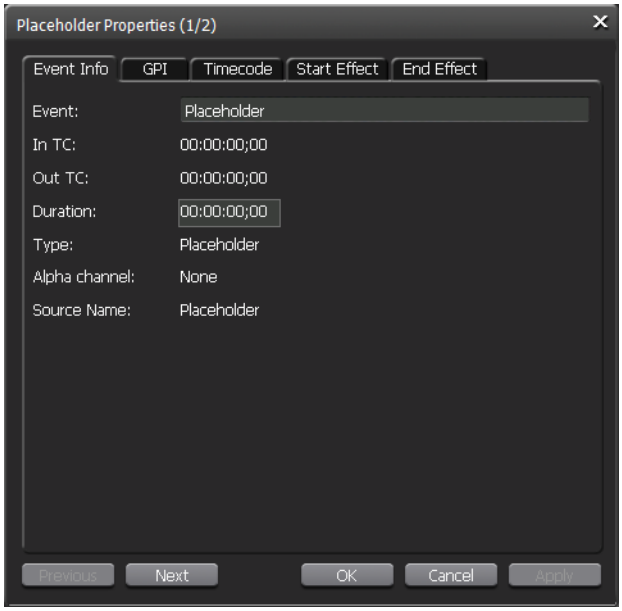


TIP

- Alternatively, right-click on the playlist without selecting any event, and then click [Placeholder] -> [Insert at the tail], to add a place holder.
- Select [Placeholder] -> [Insert at the tail] from [Playlist Menu] to create a new playlist containing a place holder event.
  P1/P2 channel (playlist view) – 3ch view►P141
- You can make settings for adding a place holder event.
  [Playlist Placeholder] dialog box (workstation mode only)►P180

The properties of the place holder are displayed.

➢ Properties of place holder



[Event Info] tab	Displays the information on the place holder. You can check the event name, event type, In/Out points, duration, alpha channel presence, the name of the contents being linked, etc. You can change the event name and duration.
[GPI] tab	When controlling an external device with GPI output, allows to check or set the trigger event actions. (Only for P1 channel.) **Controlling external devices from T2 with GPI output►P213**
[Timecode] tab	Specifies starting timecode of an event. (Enabled when [According to event setting] is selected on the [Timecode] tab in the playlist property.) To use the starting timecode of a media file, select [Source]. To specify a starting timecode, select [Specify start time], tap the entry area, and enter timecode.
[Start Effect] tab	Allows to check or set the effects for event starting (start effects). **Setting effects on an event►P110**
[End Effect] tab	Allows to check or set the effects for event ending (end effects). **Setting effects on an event►P110**

2 Set each item and click [OK].

Replacing place holder on playlist

You can replace a set place holder to a clip.

1 Click the bin that includes the clip to be replaced with from the bin list on the [Bin] tab, and then click the clip to be replaced with from the contents list.

[Bin] tab►P79

2 Right-click on the place holder, click [Placeholder] -> [Replace], and then click the clip to be replaced with.

The place holder is replaced with the clip.

TIP

- Alternatively, drag & drop the clip that is selected on the contents list in the bin list to in a place holder, to replace a place holder with a clip.
  Replacing place holder by drag & drop operation►P155
- You can make settings for replacing a place holder event.
  [Playlist Placeholder] dialog box (workstation mode only)►P180

Changing a playlist name

You can change the name of the playlist loaded to the P1/P2 channel.

1 Tap [Menu] in the playlist view, and then tap [Rename].

2 Enter a name and tap [OK].

Software keyboard►P119

Checking playlist properties

You can check the properties of the playlist loaded to the P1/P2 channel.

1 Tap [Menu] in the playlist view, and then tap [Properties].

The properties of the playlist are displayed.

Playlist properties►P84

Checking event properties

You can check the properties of events in the playlist loaded to the P1/P2 channel.

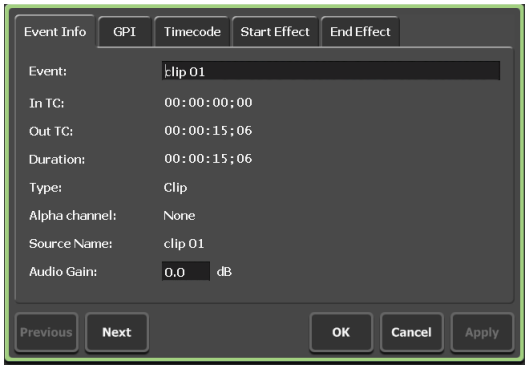
1 Tap and select an event in the playlist view.

The selected event is displayed with a blue frame.

2 Tap [Menu], and then tap [Event Properties].

The properties of the event are displayed.

➢ Event properties



[Event Info] tab	Displays the information of the event. You can check the event name, event type (clip or playlist), In/Out timecode, length, alpha channel presence, the name of the contents being linked, etc. Tapping the entry area allows to change the event name and audio gain. (For still images, the length can be changed.)
[GPI] tab	When controlling an external device with GPI output, allows to check or set the trigger event actions. (Only for P1 channel.) **Controlling external devices from T2 with GPI output►P213**
[Timecode] tab	Specifies starting timecode of an event. (Enabled only when [According to event setting] is selected in the [Timecode] tab in the playlist properties.) To use the starting timecode of a media file, select [Source]. To specify a starting timecode, select [Specify Start Time], tap the entry area, and enter timecode.
[Start Effect] tab	Allows to check or set the effects for event ending (end effects). **Setting effects on an event►P110**
[End Effect] tab	Allows to check or set the effects for event ending (end effects). **Setting effects on an event►P110**

3 Tap [OK].

Entering characters and numerics

Entering characters

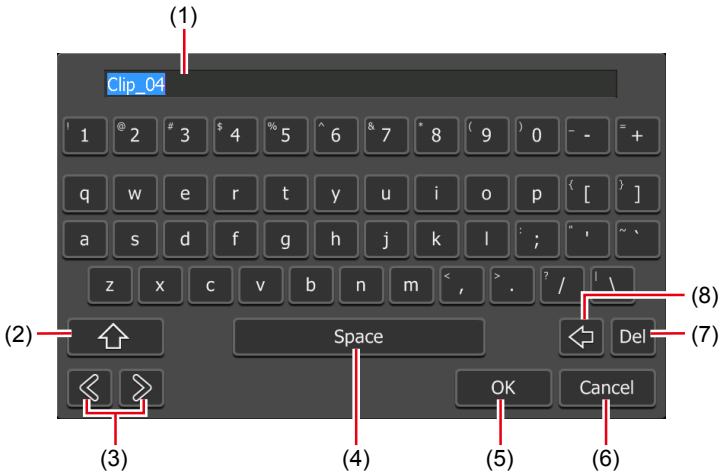
The operation to enter characters in each screen is described in this part.

NOTE • You cannot enter Japanese characters.

1 Tap the entry area of a screen.

2 Enter characters with the software keyboard.

➢ Software keyboard



(1)	**Entry area**	Displays the characters entered with the software keyboard.
(2)	**[Shift]**	Switches upper/lower case of alphabets.
(3)	**Cursor (left and right)**	Moves the cursor in the entry area.
(4)	**[Space]**	Used as the space key.
(5)	**[OK]**	Fixes the entered characters and closes the software keyboard.
(6)	**[Cancel]**	Cancels the entry and closes the software keyboard.
(7)	**[Del]**	Deletes currently selected entry or deletes the character right after the cursor.
(8)	**[BackSpace]**	Deletes the character right before the cursor.

3 Tap [OK].

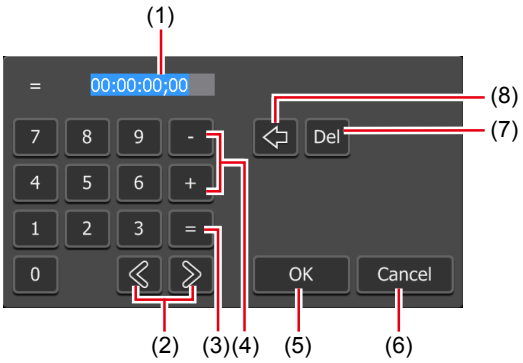
Entering timecode

The operation to enter timecode in each screen is described in this part.

1 Tap the timecode entry area of a screen.

2 Enter a timecode with the software keypad.

➢ Software keypad – Timecode



(1)	**Entry area**	Displays the timecode entered with the software keypad. According to the entered digits, the number will be automatically converted into "hour, minute, second, frame". For example, enter "4321" for 43 seconds 21 frames.
(2)	**Cursor (left and right)**	Moves the cursor in the entry area.
(3)	**[=]**	Applies the entered value to the set value for timecode as it is.
(4)	**[-]/[+]**	Allows to enter reduced or increased value (relative value) from the current value. Reduces the set value by entering after tapping [-]. Increases the set value by entering after tapping [+].
(5)	**[OK]**	Fixes the entered value and closes the software keypad.
(6)	**[Cancel]**	Cancels the entry and closes the software keypad.
(7)	**[Del]**	Deletes currently selected entry or deletes the character right after the cursor.
(8)	**[BackSpace]**	Deletes the character right before the cursor.

3 Tap [OK].

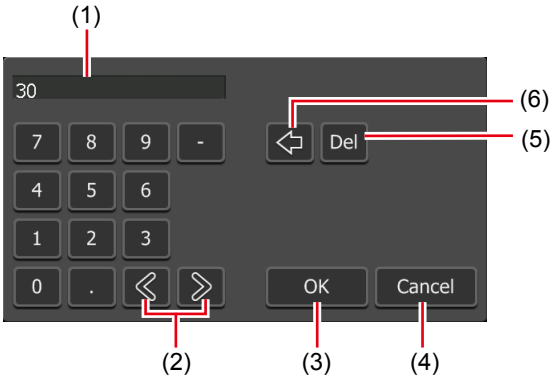
Entering numerics

The operation to enter numerics in each screen is described in this part.

1 Tap the numeric entry area of a screen.

2 Enter numerics with the software keypad.

➢ Software keypad – Numeric



(1)	**Entry area**	Displays the numerics entered with the software keypad.
(2)	**Cursor (left and right)**	Moves the cursor in the entry area.
(3)	**[OK]**	Fixes the entered value and closes the software keypad.
(4)	**[Cancel]**	Cancels the entry and closes the software keypad.
(5)	**[Del]**	Deletes currently selected entry or deletes the character right after the cursor.
(6)	**[BackSpace]**	Deletes the character right before the cursor.

3 Tap [OK].

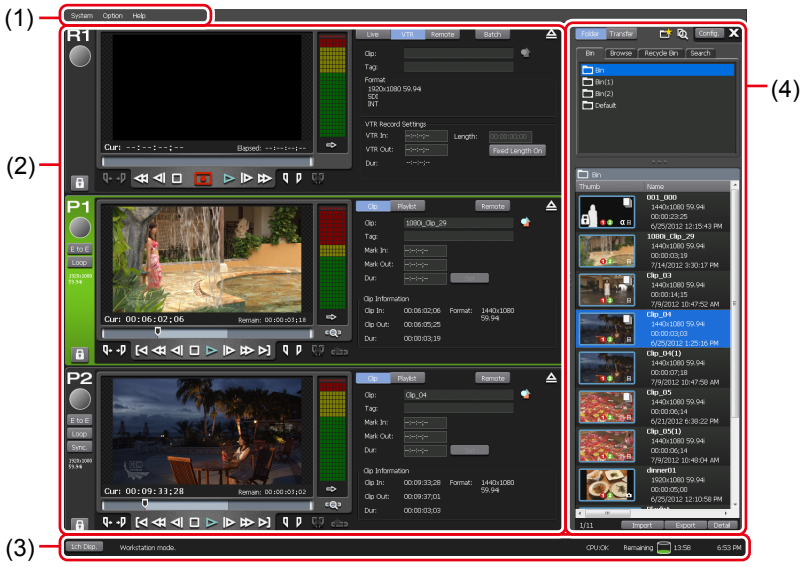
Section 9

Operations in Workstation Mode

This section describes screen elements of the workstation mode and functions available only in the workstation mode.

Screen elements

➢ Full display – 3ch view



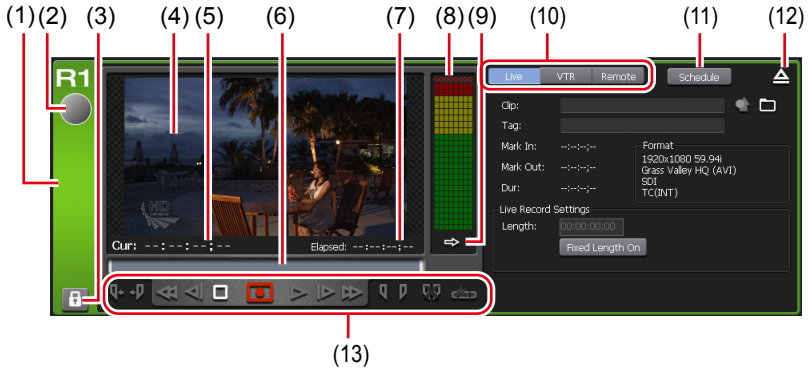
(1)	**Menu bar**	By clicking, displays related menu. **Menu bar►P123**
(2)	**Channel display part**	Displays R1, P1, and P2 channels in 3ch view. **R1 channel – 2ch/3ch view►P124** **P1/P2 channel – 2ch/3ch view►P138**
(3)	**Status bar**	**Status bar►P146**
(4)	**Bin/transfer screen display part**	Performs contents management, import/export of media files, display of the setting screen, etc. **Bin/transfer screen display part►P147**

➢ Menu bar

[System]	By clicking, displays the next menu. **[Switch to Front Panel mode]** Switches from the workstation mode to the front panel mode. **[Switch to Workstation mode]** Switches from the front panel mode to the workstation mode. **Switching from the front panel mode to the workstation mode►P47** **[T2 to T2 Sync backup...]** Makes a backup of all data to another T2. **[Maintenance...]** Switches to the maintenance mode. **[Exit]** Exits T2. **Exiting T2 in workstation mode►P47**
[View]	By clicking, displays the next menu. **[2ch (R1+P1)]** Displays R1 and P1 channels in channel display part. **[2ch (R1+P2)]** Displays R1 and P2 channels in channel display part. **[2ch (P1+P2)]** Displays P1 and P2 channels in channel display part. **[3ch]** Displays R1, P1 and P2 channels in channel display part.
[Option]	By clicking, displays the next menu. **[Log]** Sets the log level and displays logs. **Checking logs of operations and processes►P166** **[Remove media...]** Disconnects a removable drive such as USB removable media, XDCAM, P2, GF, etc. **[Customize]** Assigns keyboard shortcuts and sets mouse operations. **Changing keyboard shortcut assignment►P156** **Assigning commands to mouse operation►P157**

[Help]	By clicking, displays the next menu. **[About T2]** Displays the version of T2.

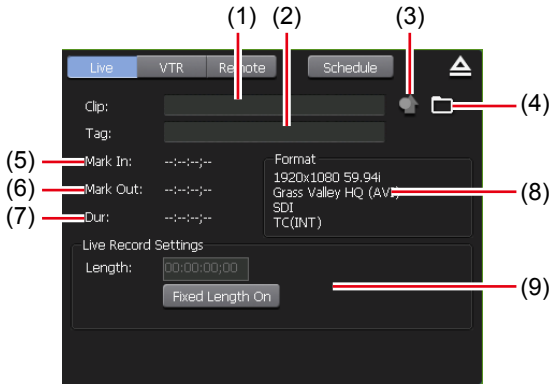
➢ R1 channel – 2ch/3ch view



(1)	**R1 channel tab**	By clicking, selects and highlights the R1 channel.
(2)	**Status**	Indicates the recording progress status.
(3)	**[Locked]**	Locks R1 channel operations. While the operations are locked, [Locked] and [R1] buttons light in red. Clicking it again releases the lock.
(4)	**Preview**	Displays the video currently played back.
(5)	**[Cur:]**	Indicates the current timecode.
(6)	**Scrubbing bar**	Indicates the recording progress status.
(7)	**[Elapsed:]**	Indicates the elapsed time of recording by timecode display.
(8)	**Audio level display**	Displays input audio level.
(9)	**[Switch to audio level detail display]**	Switches to the audio level detail display. **Audio level detail display (R1 channel)►P136**
(10)	**Recording mode**	Switches the recording mode (R1-live mode /R1-VTR mode/R1-remote mode). **R1-live mode►P125** **R1-VTR mode►P131** **R1-remote mode►P132**

(11)	**[Schedule]**	In the R1-live mode, automatically starts recording operation at a specified time, and ends it at a specified time. **R1-live mode / schedule mode►P126**
(12)	**[Unload]**	Unloads the video loaded to the R1 channel.
(13)	**Operation buttons**	**Operation buttons of R1 channel►P134**

➢R1-live mode



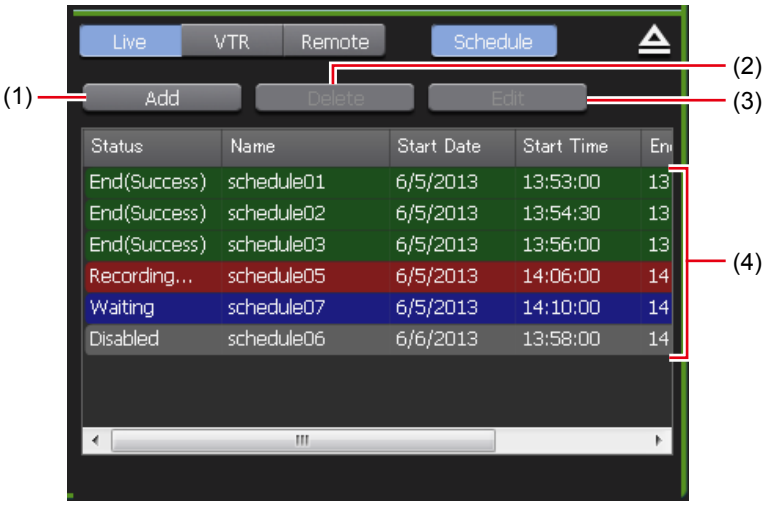
(1)	**[Clip:]**	Enter the name of the clip currently recorded.
(2)	**[Tag:]**	Enter a tag for search to the clip currently recorded.
(3)	**[Properties]**	Displays the properties of the clip currently recorded.
(4)	**[Setting of ingesting]**	Sets the saving destination and naming rule of clips being recorded. **Setting of ingesting dialog box►P133**
(5)	**[Mark In:]**	Indicates the In point timecode of the clip currently recorded.
(6)	**[Mark Out:]**	Indicates the Out point timecode of the clip currently recorded.
(7)	**[Dur:]**	Indicates the time length (duration) of the clip currently recorded.
(8)	**[Format]**	Displays the video size, frame rate, input settings, port used for input, source TC (TC (LTC)/SDI (VITC)/TC (INT)), etc.

(9)	**[Live Record Settings]**	**[Fixed Length On]** By clicking to set it on, automatically ends recording after the duration from the start point specified in [Length:].

TIP

- While recording to an external device, [Setting of ingesting] turns green to indicate that the recording to an external device is performed.

➢ R1-live mode / schedule mode



(1)	**[Add]**	Creates a new schedule. **Schedule Recording dialog box►P127**
(2)	**[Delete]**	Deletes schedules selected on the schedule list.
(3)	**[Edit]**	Changes the date and time etc. of a schedule selected on the schedule list. Displays the Schedule Recording dialog box.
(4)	**Schedule list**	Displays information on new schedules and schedules that have already been recorded. The status, name, start time, end time, and type of schedules can be viewed. **Status of Schedule►P127**

TIP

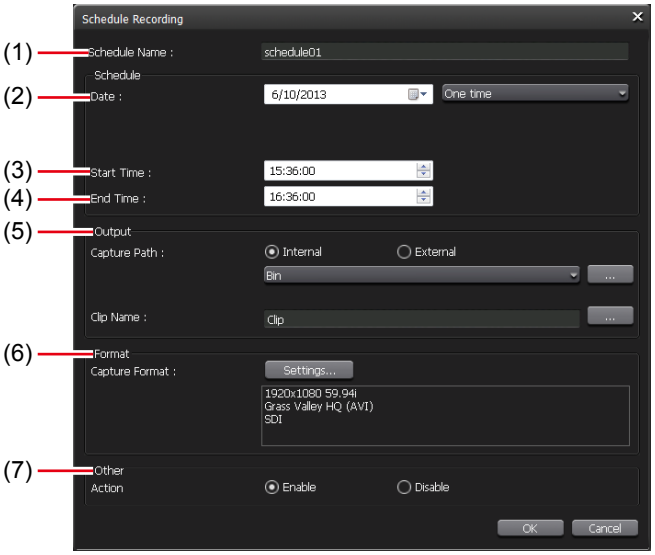
- Select a schedule on the schedule list, right-click on it, and then click [Select All], to select all schedules.

➢ Status of Schedule

Status	Details
[Waiting]	Schedule recording is waiting for next start time.
[Retrying]	Recording is retrying.
[Recording]	Recording is in process.
[End]	Recording is completed.
[Disabled]	The schedule is disabled. Recording will not be executed.

Result	Details
[Success]	Recording is completed successfully.
[Error]	An error is occurred during recording.
[Cancel]	Recording is canceled in the middle.

➢ Schedule Recording dialog box



(1)	**[Schedule Name]**	Enter the schedule name.

(2)	**[Date :]** **([Start Date :], [End Date :], [Day of week :])**	Selects [One time], [Every day], or [Every week] from the list. Selecting [Every day] or [Every week] repeats recording operation for a fixed period of time. **[One time]** By clicking the icon on the calendar, allows to set the date to automatically start recording. **[Every day]** Changes [Date :] to [Start Date :]. Checking [Set end date] displays [End Date :]. Clicking the icon on the calendar allows to set the [Start Date :] and [End Date :]. **[Every week]** Changes [Date :] to [Start Date :] and displays [Day of week :]. Checking [Set end date] displays [End Date :] and [Day of week :]. Clicking the icon on the calendar allows to set the [Start Date :] and [End Date :]. Set [Day of week :] to the day of the week when you wish to record.
(3)	**[Start Time :]**	Sets the time to automatically start recording.
(4)	**[End Time :]**	Sets the time to automatically end recording.

(5)	**[Output]**	Selects the saving destination of the clips to be recorded. **[Capture Path :]** Select [Internal] to save clips to T2. The bin that is registered to T2 is displayed from the list. Also clicking [...] allows to set a newly created bin to the saving destination. Select [External] to save clips to a destination other than T2. If <non-registered> is indicated, click [...] and set the saving destination. **[Clip Name :]** Sets the naming rule of clips to be saved. Enter the clip name. Clicking [...] enters [Date], [Time] and/or [Schedule Time] after the clip name automatically.
(6)	**[Format]**	**[Capture Format :]** Sets the format of the clips to be recorded. Clicking [Settings...] displays the Capture Format dialog box. **Capture Format dialog box►P130**
(7)	**[Other]**	**[Action]** Selects if the schedule is to be executed or not from [Enable] and [Disable].

NOTE

- The following schedules cannot be added or changed.
  - A schedule that overlaps to a registered schedule
  - A schedule whose recording start time is within one minute
  - A schedule that has already been recorded
- It may take more than one minute to finish recording after "recording long time" or "recording in the external storage". In this case, next schedule recording is started after the last recording is completed.

TIP

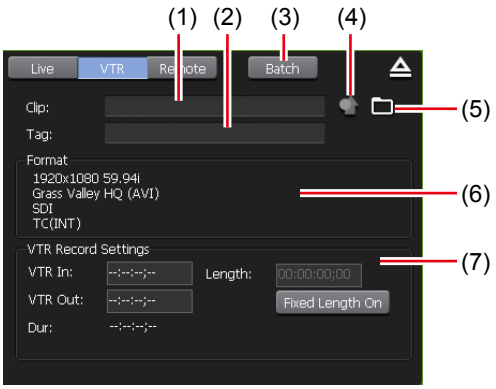
- [Date :] ([Start Date :], [End Date :]), [Start Time :], and [End Time :] can also be set by moving the mouse wheel .

➢ Capture Format dialog box

[Video]	**[Input type :]** Selects the port used for video input. **[Input format :]** Selects the format for video input. **[Aspect :]** For SD input, selects the aspect ratio. **[Pedestal :]** Selects the setup level (black level) for NTSC from 0IRE and 7.5IRE. 0IRE is used in Japan, and 7.5IRE is used in North America. Checking [Correct white peak] performs white peak correction.
[Audio]	**[Input type :]** Selects the port used for audio input from [Analog], [Digital], and [SDI-Embedded]. **[Gain (Analog) :]** Adjusts the gain to obtain an appropriate volume level.

[Compression]	**[File type :]** Selects the compression format from [Grass Valley HQ(AVI)], [XDCAM HD422(MXF)], [XDCAM HD(MXF)], [XDCAM IMX(MXF)], and [XDCAM DV(MXF)]. **[Bitrate :]** Selects a bit rate that supports the compression format. **[HQ 150Mbps MAX]** By checking, restricts the compression ratio of Grass Valley HQ Codec to 150 Mbps. **[Audio format :]** Selects an audio format that supports the compression format. **[ClosedGOP]** By checking when the format is MXF, the information are closed within GOP. It increases the data size, but allows re-editing with editor software that allows editing of GOP data. Uncheck it normally.

➢ R1-VTR mode

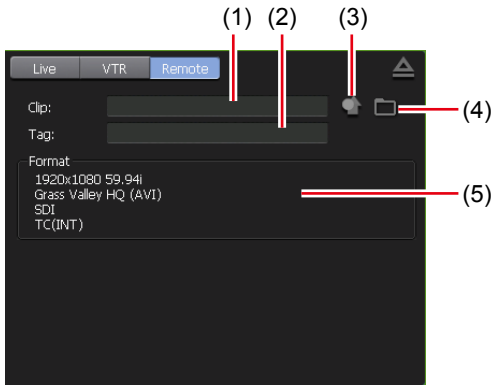


(1)	**[Clip:]**	Enter the name of the clip currently recorded.
(2)	**[Tag:]**	Enter a tag for search to the clip currently recorded.
(3)	**[Batch]**	Switches to the R1-VTR batch mode. **Recording sources at once (batch capturing)►P160**

(4)	[Properties]	Displays the properties of the clip currently recorded.
(5)	[Setting of ingesting]	Sets the saving destination and naming rule of clips being recorded. **Setting of ingesting dialog box►P133**
(6)	[Format]	Displays the video size, frame rate, input settings, port used for input, source TC (TC (LTC)/SDI (VITC)/TC (INT)), etc.
(7)	[VTR Record Settings]	**[VTR In:]** Enter the In point timecode of the clip currently recorded. **[VTR Out:]** Enter the Out point timecode of the clip currently recorded. **[Length:]** Indicates the time length (duration) of the clip currently recorded. **[Fixed Length On]** By clicking to set it on, automatically ends recording after the duration from the start point specified in [Length:].

TIP • While recording to an external device, [Setting of ingesting] turns green to indicate that the recording to an external device is performed.

➢R1-remote mode



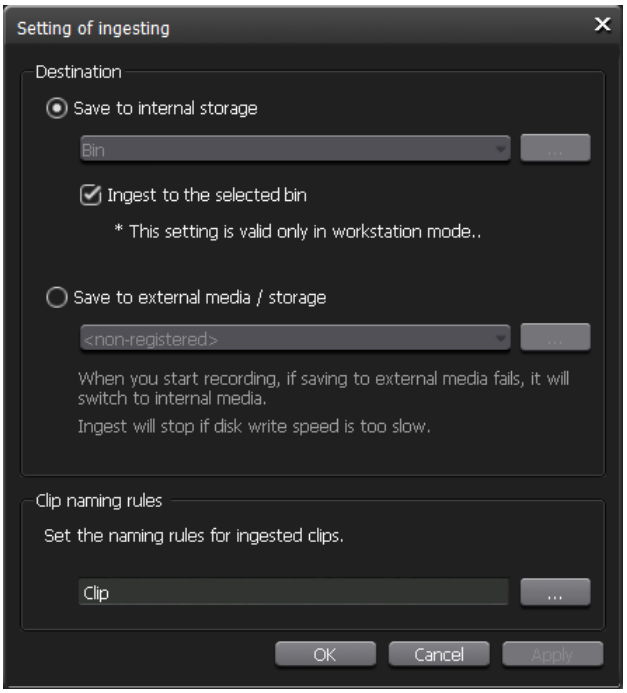
(1)	[Clip:]	Enter the name of the clip currently recorded.

(2)	**[Tag:]**	Enter a tag for search to the clip currently recorded.
(3)	**[Properties]**	Displays the properties of the clip currently recorded.
(4)	**[Setting of ingesting]**	Sets the saving destination and naming rule of clips being recorded. **Setting of ingesting dialog box►P133**
(5)	**[Format]**	Displays the video size, frame rate, input settings, port used for input, source TC (TC (LTC)/SDI (VITC)/TC (INT)), etc.

TIP

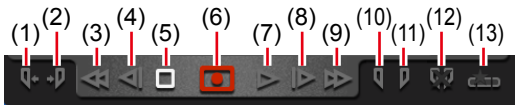
- While recording to an external device, [Setting of ingesting] turns green to indicate that the recording to an external device is performed.

➢ Setting of ingesting dialog box



[Destination]	Selects the saving destination of the clips to be recorded. Select [Save to internal storage] to save clips to T2. Select the bin that is registered to T2 from the list. Also clicking [...] allows to set a newly created bin to the saving destination. Checking [Ingest to the selected bin] saves clips to the bin selected in the bin display area. To record data to a destination other than T2, select [Save to external media / storage], and then select an external media/storage from the list. If <non-registered> is indicated, click [...] and set the saving destination.
[Clip naming rules]	Sets the naming rule by entering a name of clips to be saved. The data is recorded by a clip name with the recorded date and time, according to the items selected in [Date] and/or [Time].

➢ Operation buttons of R1 channel



(1)	**[Cue(In)]**[*1]	Moves the VTR to the In point.
(2)	**[Cue(Out)]**[*1]	Moves the VTR to the Out point.
(3)	**[Rewind]**[*1]	Rewinds the VTR.
(4)	**[Move to the previous frame]**[*1]	By every click, moves back the VTR frame by frame.
(5)	**[Stop]**	Stops playback or recording.

(6)	**[Record]**	Starts recording. The icon display changes depending on the recording mode. : Indicates that a recording stop operation is necessary. : Indicates that it is a fixed length recording. : Indicates that In point and Out point are set.
(7)	**[Play]**[*1]	Plays the VTR.
(8)	**[Move to the next frame]**[*1]	By every click, moves forward the VTR frame by frame.
(9)	**[FastFwd]**[*1]	Fast forwards the VTR.
(10)	**[Mark(In)]**	Sets In point to the current position.
(11)	**[Mark(Out)]**	Sets Out point to the current position.
(12)	**[Clear (In/Out)]**	Clears set In/Out points.
(13)	**[Create Subclip]**[*2]	Creates a sub clip between In-Out points set while recording, and saves it as highlight.

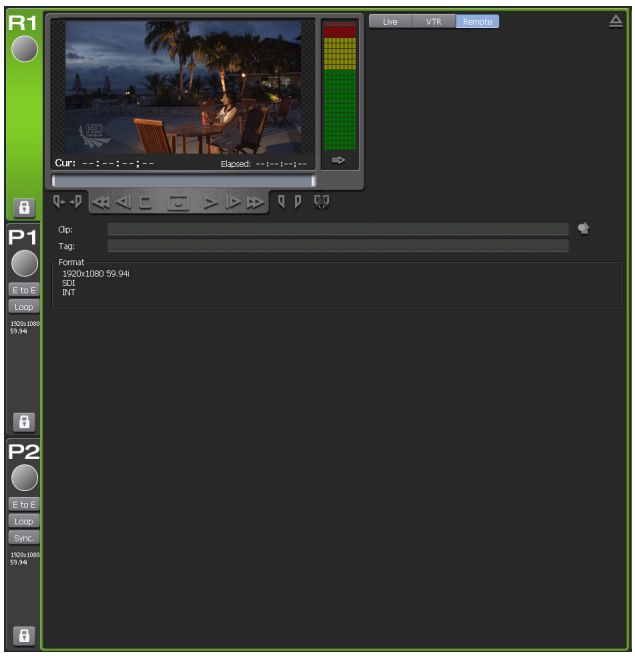
*1 Only for R1-VTR mode.

*2 Only for R1-live mode. However, if the video being recorded is saved to an external media or storage, a sub clip cannot be created.

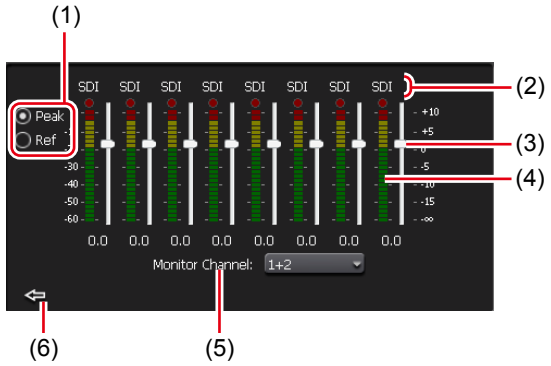
➢ R1 channel – 1ch view

The display is same as that of R1 channel – 3ch view.

R1 channel – 2ch/3ch view►P124



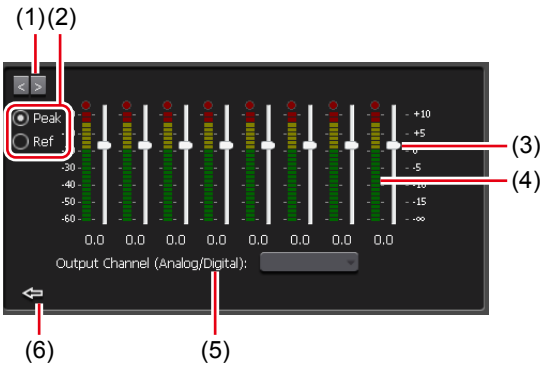
➢Audio level detail display (R1 channel)



(1)	**Switching of display scale**	Selecting [Peak] makes the maximum level to 0 dB. Selecting [Ref] makes the set audio reference level as the standard level. You can set the audio reference level in [Audio reference level:] from [General] -> [Hardware] tab in the setting screen. **General – Hardware settings►P169**
(2)	**Input port**	Indicates the port used for input.
(3)	**Gain slider**	By moving the slider, adjusts the gain for each channel (only ANA is available).
(4)	**Level meter**	Displays the input audio level for each track.

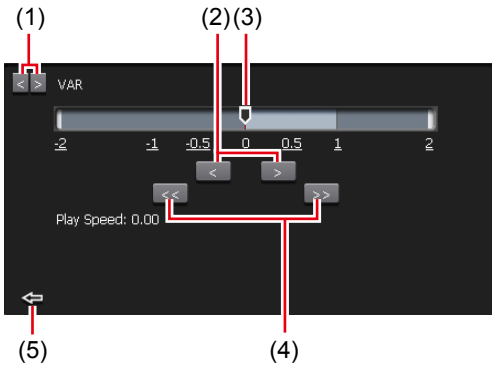
(5)	**Monitor channel**	Indicates the channel that monitors the audio level. For the R1 channel, you can select a channel to monitor from the list.
(6)	**[Close]**	By clicking, closes the audio level detail display.

➢ Audio level detail display (P1/P2 channel)



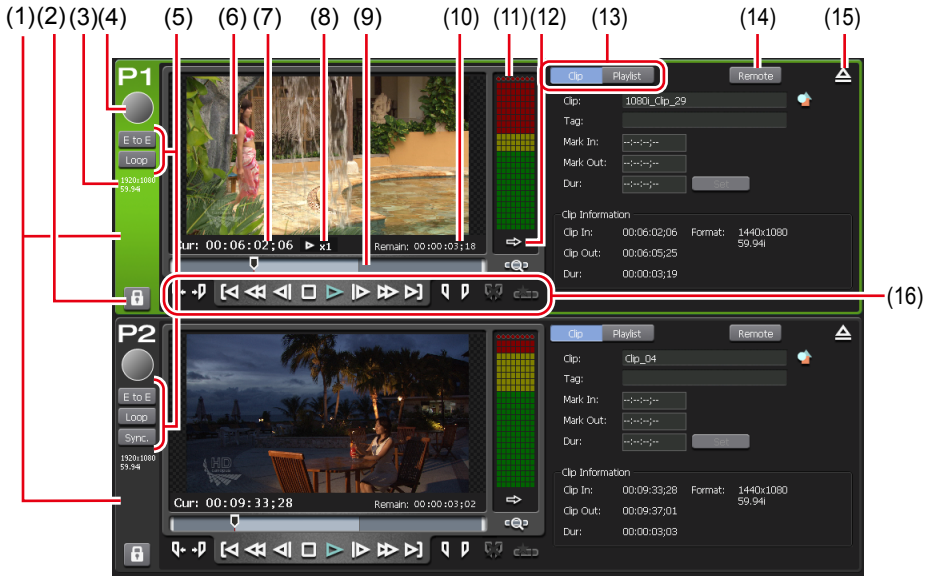
(1)	**[<]/[>]**	Switches the audio level detail display and VAR speed control.
(2)	**Switching of display scale**	Selecting [Peak] makes the maximum level to 0 dB. Selecting [Ref] makes the set audio reference level as the standard level. You can set the audio reference level in [Audio reference level:] from [General] -> [Hardware] tab in the setting screen. **General – Hardware settings►P169**
(3)	**Gain slider**	Adjusts the gain of each channel by moving the slider.
(4)	**Level meter**	Displays the input audio level for each track.
(5)	**Output channel**	Allows to select the channel for headphones, analog, and digital output. Analog and digital output setting is enabled even when a channel is not selected.
(6)	**[Close]**	By clicking, closes the audio level detail display.

➢ VAR speed control



(1)	**[<]/[>]**	Switches the audio level detail display and VAR speed control.
(2)	**[<]/[>]**	By every click, increases or decreases the playback speed by 0.01 time.
(3)	**Speed specifying bar**	By clicking on the speed specifying bar or the value indicating the speed, specifies the playback speed within the range of -2 to +2 times.
(4)	**[<<]/[>>]**	By every click, increases or decreases the playback speed by 0.1 time.
(5)	**[Close]**	By clicking, closes the VAR speed control.

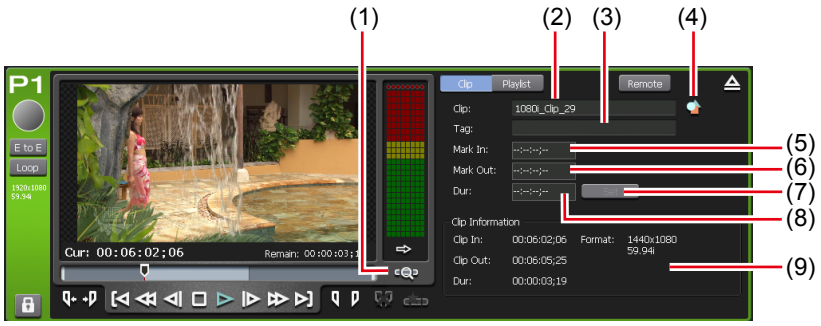
➢ P1/P2 channel – 2ch/3ch view



* (2) to (16) are common in P2 channel.

(1)	**P1 channel tab/ P2 channel tab**	By clicking, selects and highlights the P1 channel (or P2 channel).
(2)	**[Locked]**	Locks P1 channel (or P2 channel) operations. While the operations are locked, [Locked] and [P1] (or [P2] button) buttons light in red. Tapping it again releases the lock.
(3)	**Output profile**	Indicates the output profile of the channel.
(4)	**Status**	Indicates the playback progress status.
(5)	**Playback mode**	Switches on and off of the current playback mode (sync mode, E to E mode, loop playback mode) of the P1 channel (or P2 channel).
(6)	**Preview**	Displays the video currently played back. To update the thumbnail of the contents with the video of the current position, right-click the preview and click [Set Thumbnail Frame].
(7)	**[Cur:]**	Indicates the current timecode.
(8)	**Playback speed**	Indicates the current playback speed (times).
(9)	**Scrubbing bar**	Indicates the playback progress status and markers of set In/Out points.
(10)	**[Remain:]**	Indicates the timecode of the remaining time.
(11)	**Audio level display**	Displays input audio level.
(12)	**[Switch audio level detail display/VAR speed control]**	Switches to the audio level detail display or VAR speed control. **Audio level detail display (P1/P2 channel)►P137** **VAR speed control►P138**
(13)	**[Clip]/ [Playlist]**	Switches to the clip view or playlist view. **P1/P2 channel (clip view) – 2ch/3ch view►P140** **P1/P2 channel (playlist view) – 2ch/3ch view►P141**
(14)	**[Remote]**	Switches to the P1-remote mode (or P2-remote mode).
(15)	**[Unload]**	Unloads the contents loaded on the P1 channel (or P2 channel).
(16)	**[Operation Button]**	**Operation buttons of P1/P2 channel►P142**

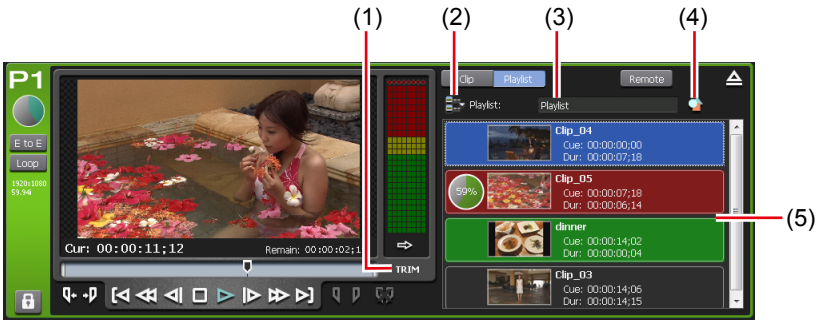
➢ P1/P2 channel (clip view) – 2ch/3ch view



*(1) to (9) are common in P2 channel.

(1)	[Zoom]	Switches the display scale of the scrubbing bar. Clicking it displays [Zoom] in red, and displays the In-Out pints of the clip as the whole scale. Clicking it again returns the display to the original scale and displays the whole clip.
(2)	[Clip:]	Indicates the name of the loaded clip. Also allows to edit the clip name.
(3)	[Tag:]	Indicates the tag for search of the loaded clip. Also allows to edit the tag.
(4)	[Properties]	Displays the properties of the clip currently loaded.
(5)	[Mark In:]	Indicates the In point timecode of the clip. Also allows to enter and edit the In point timecode.
(6)	[Mark Out:]	Indicates the Out point timecode of the clip. Also allows to enter and edit the Out point timecode.
(7)	[Set]	Trims the clip between the set In-Out points.
(8)	[Dur:]	Indicates the time length (duration) of the clip. Also allows to enter and edit the timecode of the duration.
(9)	[Clip Contents]	Displays the In and Out points of the clip, duration of the clip, video size of the clip, and frame rate.

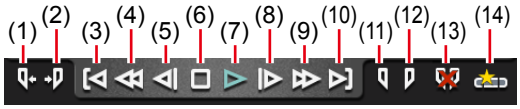
➢ P1/P2 channel (playlist view) – 2ch/3ch view



*(1) to (5) are common in P2 channel.

(1)	**[TRIM]**	Switches to the TRIM mode. You can edit the In/Out points of the event selected in the event list. **P1/P2 channel (playlist view) – 1ch view/TRIM mode►P143**
(2)	**[Playlist Menu]**	Displays the related menu.
(3)	**[Playlist:]**	Indicates the name of the loaded playlist. Also allows to edit the playlist name.
(4)	**[Properties]**	Displays the properties of the playlist currently loaded.
(5)	**Event list**	Displays the list of events in the playlist. By right-clicking the event, displays the related menu. The background color of the event indicates the current status of the event. • Red indicates that the event has the playback position on the scrubbing bar. • Green indicates the next event of the event that has the playback position on the scrubbing bar. • Blue indicates that the event is selected. The background color of the event can be changed to your preferred color. **[Playlist View Style:] dialog box (workstation mode only)►P179**

➢ Operation buttons of P1/P2 channel



(1)	**[Cue(In)]**	Moves to the In point of the contents.
(2)	**[Cue(Out)]**	Moves to the Out point of the contents.
(3)	**[Move to previous edit point]**	In the TRIM mode of clip view or playlist view, moves to the previous edit point (top of the clip, In/Out point after trimmed) by every click. In the playlist view, moves to the In point of the previous event.
(4)	**[Rewind]**	Rewinds the contents. By every click, switches the speed to 2 to 32 times (5 levels) and plays in backward.
(5)	**[Move to the previous frame]**	By every click, moves back the contents frame by frame.
(6)	**[Stop]**	Stops playback.
(7)	**[Play]**	Plays the contents.
(8)	**[Move to the next frame]**	By every click, moves forward the contents frame by frame.
(9)	**[FastFwd]**	Fast forwards the contents. By every click, switches the speed to 2 to 32 times (5 levels) and plays.
(10)	**[Move to next edit point]**	In the TRIM mode of the clip view or playlist view, moves to the next edit point (In/Out point after trimmed, end of the clip) by every click. In the playlist view, moves to the In point of the next event.
(11)	**[Mark(In)]**	Sets In point to the current position. After In point has been set, the In point marker appears on the scrubbing bar.
(12)	**[Mark(Out)]**	Sets Out point to the current position. After Out point has been set, the Out point marker appears on the scrubbing bar.
(13)	**[Clear (In/Out)]**	Clears set In/Out points.

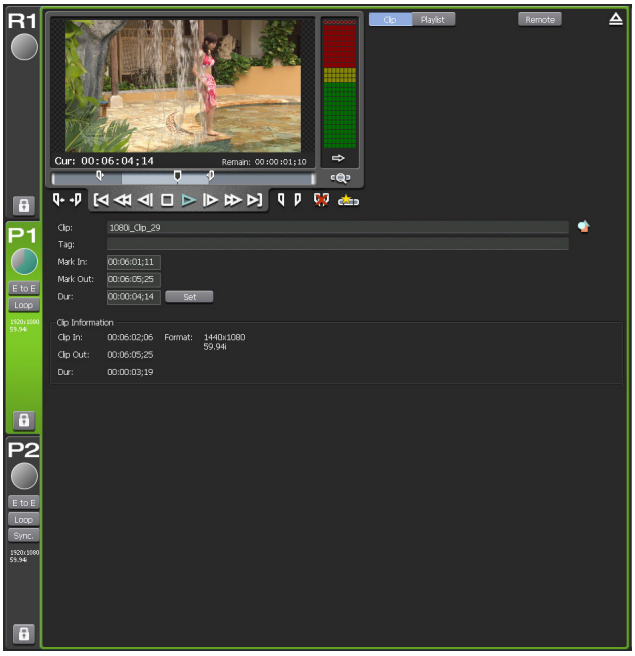
(14)	**[Create Subclip]**	Creates a sub clip between In-Out points set while recording, and saves it as highlight.

➢ P1/P2 channel (clip view) – 1ch view

The display is same as that of P1/P2 channel (clip view) – 3ch view.

P1/P2 channel – 2ch/3ch view►P138

P1/P2 channel (clip view) – 2ch/3ch view►P140



➢ P1/P2 channel (playlist view) – 1ch view/TRIM mode

The preview and operation button parts are same as that of P1/P2 channel (playlist view) – 3ch view.

P1/P2 channel – 2ch/3ch view►P138

P1/P2 channel (playlist view) – 2ch/3ch view►P141

The elements which differ from that of P1/P2 channel (playlist view) – 3ch view are described here.

*(1) to (7) are common in P2 channel.

(1)	**[TRIM]**	Switches on and off of the TRIM mode. Displayed in red during in the TRIM mode. By clicking when in the TRIM mode, exits the TRIM mode.
(2)	**[Playlist:]**	Indicates the name of the loaded playlist. Also allows to edit the playlist name.
(3)	**[Tag:]**	Indicates the tag for search of the loaded playlist. Also allows to edit the tag.
(4)	**[Properties]**	Displays the properties of the playlist currently loaded.

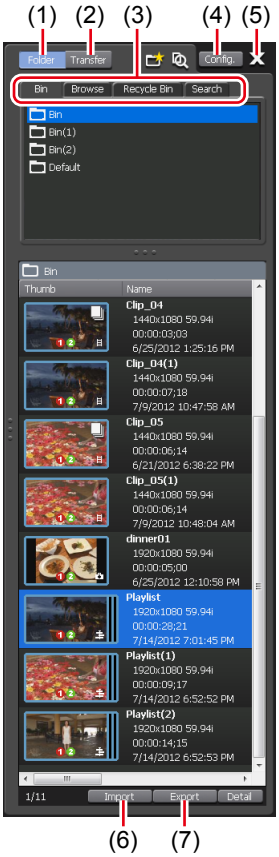
(5)	**[Current Event]**	Displays the information of the event being played. **[Event:]** Indicates the name of the event. Also allows to edit the event name in the TRIM mode. **[In:]** Indicates the timecode of the In point. Also allows to edit the In point timecode in the TRIM mode. **[Out:]** Indicates the timecode of the Out point. Also allows to edit the Out point timecode in the TRIM mode. **[Dur:]** Indicates the timecode of the length of the event (duration). Also allows to edit the timecode of the duration in the TRIM mode. **[Set]** Displays only in the TRIM mode. Trims between the set In-Out points.
(6)	**[Playlist Menu]**	Displays the related menu.
(7)	**Event list**	Displays the list of events in the playlist. By right-clicking the event, displays the related menu. The background color of the event indicates the current status of the event. • Red indicates that the event has the playback position on the scrubbing bar. • Green indicates the next event of the event that has the playback position on the scrubbing bar. • Blue indicates that the event is selected. The background color of the event can be changed to your preferred color. **[Playlist View Style:] dialog box (workstation mode only)►P179**

➢ Status bar

(1)	**[3ch(2ch) Disp.]/ [1ch Disp.] switching**	Switches 3ch(2ch) view and 1ch view.
(2)	**Operation mode**	Displays the current operation mode (workstation mode/front panel mode).
(3)	**Log notification icon**	Notifies a warning or error log with an icon when it occurs. Clicking the icon displays the [Log] dialog box and allows to check the details.
(4)	**[FTP]**	Indicates that the FTP server of T2 is in use.
(5)	**Transfer process icon**	Indicates an icon that notifies import, export, or file conversion is in process.
(6)	**[CPU]**	Indicates the CPU load status of T2.
(7)	**Remaining HDD (remaining time)**	Displays the estimated recording time available on HDD. When the remaining capacity reduces, the icon is displayed in red.
(8)	**Time**	Displays the current time. **Date and time ssetting dialog box►P181**

NOTE • If the icon appears on the status bar, there is a problem with the RAID system. Consult the shop of purchase.

➢ Bin/transfer screen display part



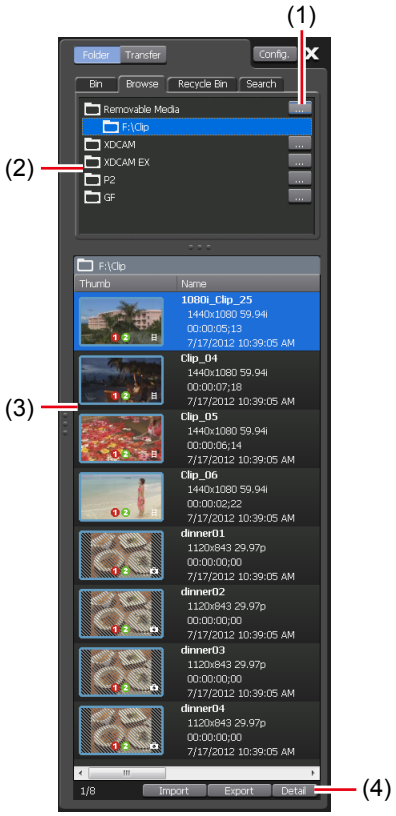
(1)	**[Folder]**	Displays the bin view ([Bin] tab, [Browse] tab, [Recycle Bin] tab, and [Search] tab).
(2)	**[Transfer]**	Displays the transfer screen. **Transfer screen►P152**
(3)	**View switching tab**	Switches to [Bin] tab/[Browse] tab/[Recycle Bin] tab/[Search] tab. **[Bin] tab►P148** **[Browse] tab►P149** **[Recycle Bin] tab►P150** **[Search] tab►P151**
(4)	**[Config.]**	Displays the setting screen.
(5)	**[X]**	Exits or restarts T2.
(6)	**[Import]**	Displays the menu related to import. The display switches to the [Browse] tab. **Import menu►P152**

(7)	[Export]	Displays the menu related to export. The display switches to the [Bin] tab. **Export menu►P153**

➢ [Bin] tab

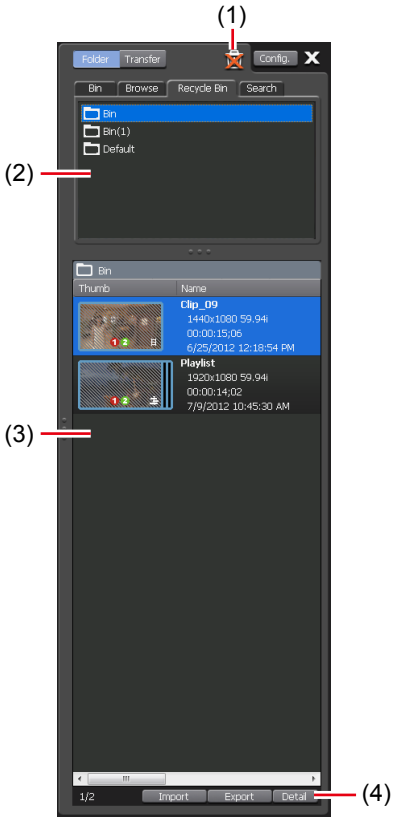
(1)	[New Bin]	Creates a new bin.
(2)	[Search Contents]	You can search contents in the bin. **Searching for contents►P163**
(3)	Bin list	Displays the list of bins. The selected bin is highlighted in blue. Right-clicking the selected bin displays the related menu.
(4)	Contents list	Displays the list of contents selected in the bin list. The selected item is highlighted in blue. Right-clicking the selected contents displays the related menu.
(5)	[Detail]	Displays the details of the contents selected in the contents list.

➢ [Browse] tab



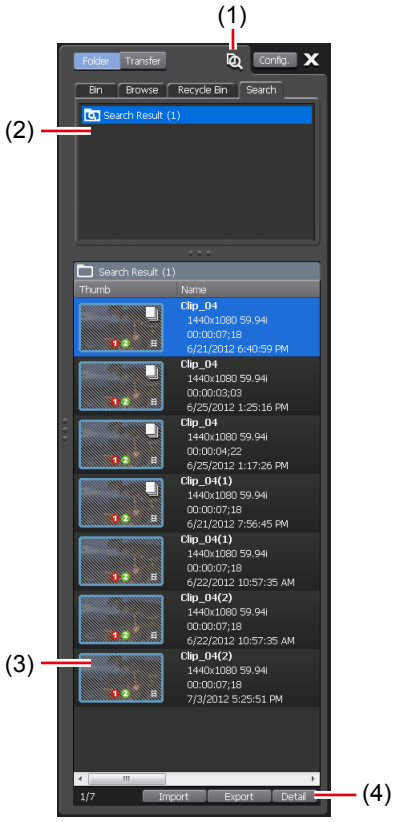
(1)	**[...]**	When a removable media is connected to T2, you can select a folder to display in the [Browse] tab.
(2)	**Removable media list**	Displays the removable media's media or folders in the drive connected to T2. The selected folder is highlighted in blue. Right-clicking the selected folder displays the related menu.
(3)	**Media file list**	Displays the list of media files in the drive selected from the removable media list. The selected media file is highlighted in blue. Right-clicking the selected media file displays the related menu.
(4)	**[Detail]**	Displays the details of the media file selected in the media file list.

➢ [Recycle Bin] tab



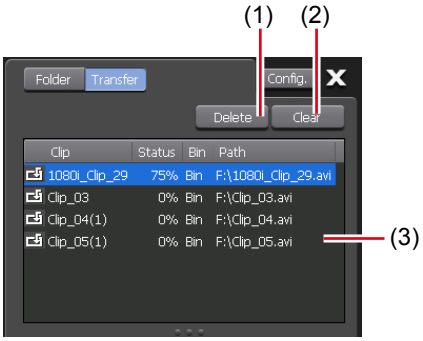
(1)	**[Empty Recycle Bin]**	Deletes all files in the recycle bin. Note that the deleted contents cannot be restored.
(2)	**Recycle bin folder list**	Displays the list of folders in the recycle bin. The selected folder is highlighted in blue. Right-clicking the selected folder displays the related menu.
(3)	**Contents list**	Displays the list of contents in the folder selected in the recycle bin folder list. The selected item is highlighted in blue. Right-clicking the selected contents displays the related menu.
(4)	**[Detail]**	Displays the details of the contents selected in the contents list.

➢ [Search] tab



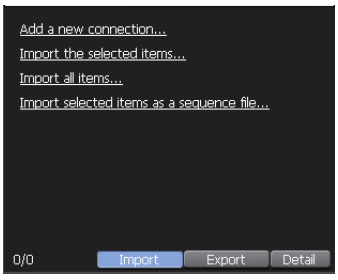
(1)	[Search Contents]	You can search contents in the bin. **Searching for contents►P163**
(2)	Search result folder list	Displays the list of folders of the search result. The selected folder is highlighted in blue. Right-clicking the selected folder displays the related menu.
(3)	Contents list	Displays the list of contents in the folder selected in the search result folder list. The selected item is highlighted in blue. Right-clicking the selected contents displays the related menu.
(4)	[Detail]	Displays the details of the contents selected in the contents list.

➢ Transfer screen



(1)	**[Delete]**	Deletes selected jobs. If you tap [Delete] while executing a job, the job will be canceled.
(2)	**[Clear]**	Deletes all jobs from the job list.
(3)	**Job list**	Displays the list of jobs. **[Clip]** Indicates the name of the clip. **[Status]** Indicates the job progress status. **[Bin]** Indicates the bin name. **[Path]** Indicates media file path and file name.

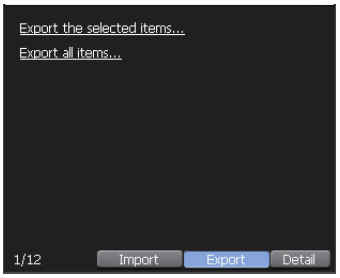
➢ Import menu



[Add a new connection...]	When a removable media is connected to T2, you can select a folder to display in the [Browse] tab by clicking it.
[Import the selected items...]	Imports the media file selected in the media file list to T2 as a clip.

[Import all items...]	Imports all the media files in the folder selected from the removable media list.
[Import selected items as a sequence file...]	Imports still images with numbers that are serial to the selected still image as a single sequence clip (in Grass Valley HQ AVI).

➢ Export menu



[Export the selected items...]	Exports the selected contents as media files or T2 format (TWF) files.
[Export all items...]	Exports the all items in the selected folder as media files or T2 format (TWF) files.

Keyboard and mouse operations in workstation mode

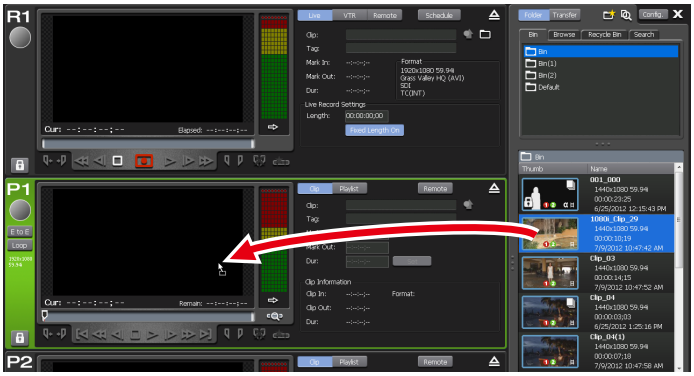
Multiple selection of contents

You can select multiple contents in the media file list, contents list, and event list in the same way as PC operations.
Use the [Ctrl] key or [Shift] key on the keyboard or drag the mouse to select multiple contents and perform operations from the right-click menu.
In the event list, you can change the event order by the drag & drop operation with a mouse. You can also sort the multiple events you selected.

Loading contents to P1/P2 channel by drag & drop operation

You can quickly load contents in the media file list and contents list to the P1/P2 channel by drag & drop operation with a mouse.

1 Select contents and drag & drop it to the display area of the P1 channel (or P2 channel).



Adding events to playlist by drag & drop operation

You can quickly add events to the playlist by drag & drop operation with a mouse.

You can also add the playlist to another playlist as an event without spreading it out.

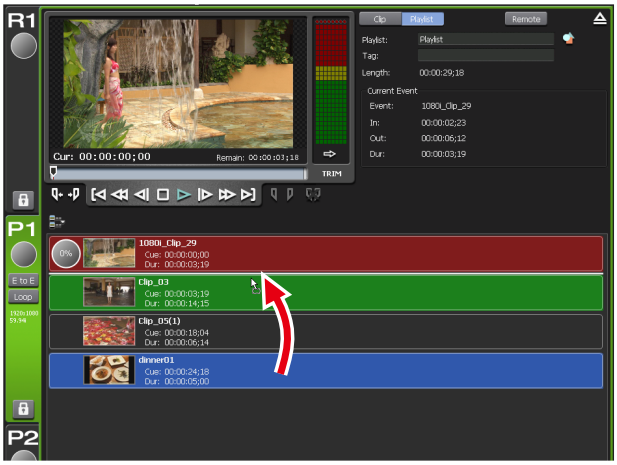
1 Select contents and drag & drop to the event list.

The contents are added to the dropped position as an event.

Sorting events in playlist by drag & drop operation

You can quickly sort events in the playlist by drag & drop operation with a mouse.

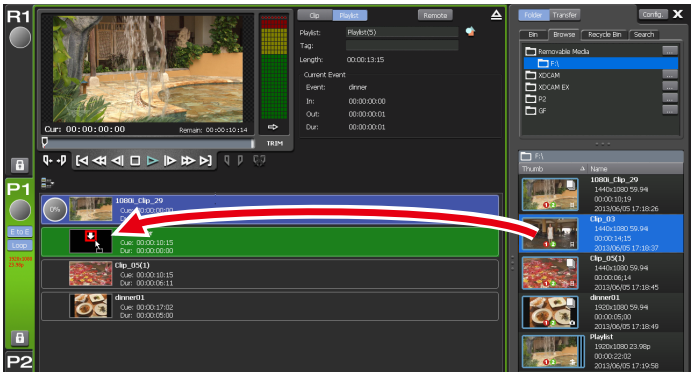
1 Select an event in the event list and drag & drop to the destination.



Replacing place holder by drag & drop operation

You can quickly replace place holders by drag & drop operation with a mouse. You can replace a place holder when is highlighted in red.

1 Select an event from the event list, and drag & drop it on the place holder.

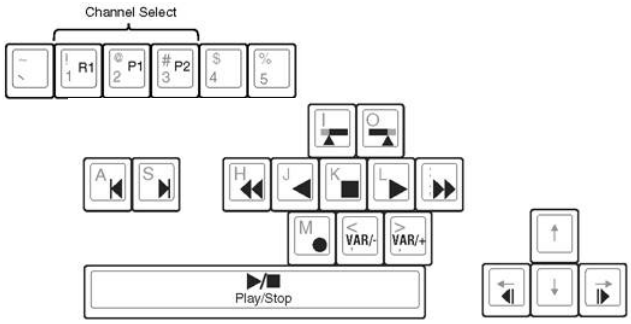


TIP

- If the playlist view is set to the detail view, a place holder cannot be replaced by drag & drop.

Major keyboard shortcuts

The following illustration shows the allocation of frequently used keyboard shortcut keys (default).

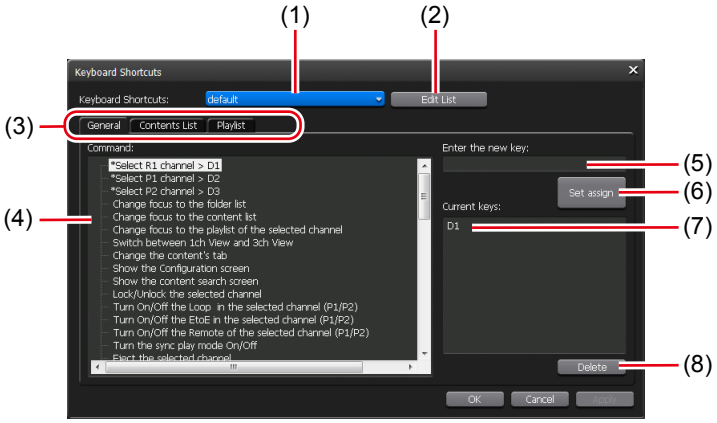


Changing keyboard shortcut assignment

You can customize the shortcuts assigned to the keyboard.
The procedure to make a new keyboard shortcut setting based on the default keyboard shortcut to change the shortcut key assignment is described in this part.

1 Click [Option] on the menu bar, and then click [Customize] -> [Keyboard Shortcuts...].

➢ [Keyboard Shortcuts] dialog box



(1)	[Keyboard Shortcuts:]	Selects a keyboard shortcut to use. The default name is “default”.
(2)	[Edit List]	Displays the [Edit List] dialog box and allows to change the keyboard shortcut settings in the items of new creation/copy/delete/name.

(3)	**Action category switching tab**	Switches the action category ([General] tab/ [Contents List] tab/[Playlist] tab).
(4)	**[Command:]**	Displays the list of actions of the selected category.
(5)	**[Enter the new key:]**	Enter a new shortcut key to assign to the selected command.
(6)	**[Set assign]**	Assigns the shortcut key entered in [Enter the new key:].
(7)	**[Current keys:]**	Displays the shortcut key assigned to the selected command.
(8)	**[Delete]**	Deletes the shortcut key selected in [Current keys:].

2 Click [Edit List].

3 In the [Edit List] dialog box, click [New...].

4 Enter a name of a keyboard shortcut and click [OK].

5 In the [Edit List] dialog box, click [Close].

6 Select the added shortcut setting from the list of [Keyboard Shortcuts:] in the [Keyboard Shortcuts] dialog box.

7 Select a category from the action category switching tab.

8 Select an action with [Command:].

9 Enter the shortcut key to assign in the entry area of [Enter the new key:] and click [Set assign].

The entered shortcut key is displayed in [Current keys:].

10 Click [OK].

Click [Apply] to keep on making settings of other items.

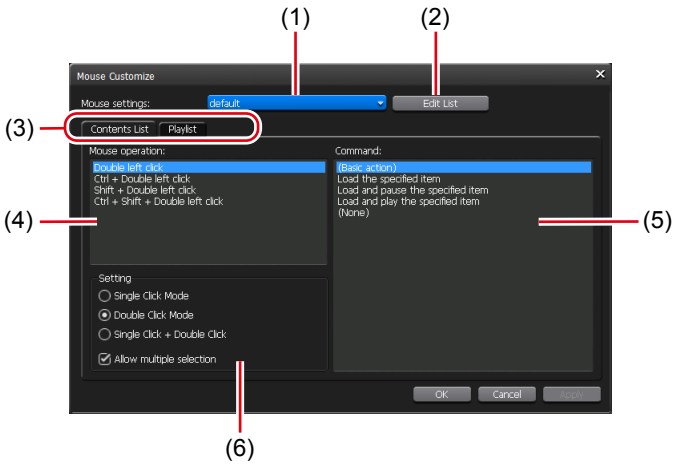
Assigning commands to mouse operation

You can assign commands so that certain mouse operations performs certain actions, such as loading a clip on the P1/P2 channel and playing it. The procedure to create a new setting for mouse and assign the command to the mouse is described in this part.

1 Click [Option] on the menu bar, and then click [Customize] ->

[Mouse...].

➢ [Mouse Customize] dialog box



(1)	**[Mouse settings:]**	Selects a mouse setting to use.
(2)	**[Edit List]**	Displays the [Edit List] dialog box and allows to change the mouse settings in the items of new creation/copy/delete/name.
(3)	**Action category switching tab**	Switches the action category ([Contents List] tab/[Playlist] tab).
(4)	**[Mouse operation:]**	Displays the list of mouse operations of the operation mode selected in [Setting]. Select a mouse operation to assign a command.
(5)	**[Command:]**	Displays the list of actions of the selected category. Select a command to assign to the mouse operation selected in [Mouse operation:].
(6)	**[Setting]**	Selects the operation mode of mouse from [Single Click Mode], [Double Click Mode], and [Single Click + Double Click]. Checking [Allow multiple selection] allows multiple selections of contents by the mouse operation.

2 Click [Edit List].

3 In the [Edit List] dialog box, click [New...].

4 Enter the name of the mouse setting and click [OK].

5 In the [Edit List] dialog box, click [Close].

6 Select the added mouse setting from the list of [Mouse settings:] in the [Mouse Customize] dialog box.

7 Select the operation mode of mouse in [Setting].

8 Select a mouse operation to assign a command in [Mouse operation:].

9 Select an action with [Command:].

10 Click [OK].

Click [Apply] to keep on making settings of other items.

Recording sources at once (batch capturing)

You can import the batch capture list to your T2 and record sources from VTR at once.
The batch capture lists in the following file formats can be imported.

- CSV file (Mode1/Mode2) (*.csv): Batch capture list created with EDIUS
- ALE file (*.ale): File corresponding to Avid Log Exchange batch capture list
- FCL file (*.fcl): File corresponding to Apple Final Cut Pro batch capture list

NOTE

- After importing the batch capture list to your T2, you cannot change In/Out points, duration, or reel name, and you cannot add batch capture items.

Set the connection information of the VTR used for action setting of batch capturing and for recording, or the video format for capturing beforehand.
General – Hardware settings►P169
R1 settings►P182
Transfer – common settings►P192
Make settings in the setting screen according to the environment in use.
Settings►P168
The procedure to import a batch capture list and start recording is described in this part.

1 Click the R1 channel tab.

R1 channel is selected.
R1 channel – 2ch/3ch view►P124

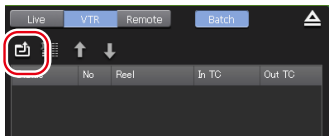
2 Click [VTR].

The mode switches to the R1-VTR mode.

3 Click [Batch].

The mode switches to the R1-VTR batch mode.

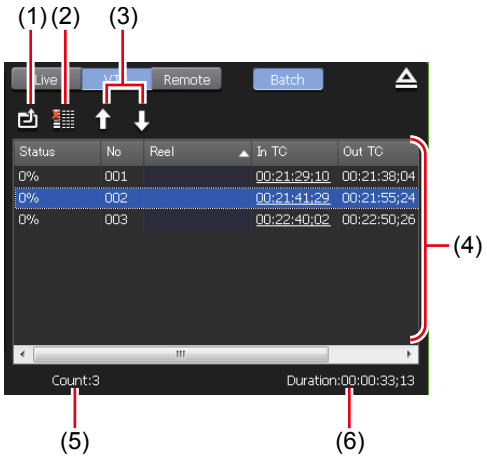
4 Click [Load Batch Capture List].



5 Select the batch capture list and click [OK].

The batch capture list appears.

➢ R1-VTR batch mode



(1)	**[Load Batch Capture List]**	Imports the batch capture list (CSV, ALE, FCL files).
(2)	**[Delete Batch Capture Item]**	Deletes a batch capture item. You can also perform the same operation by selecting and right-clicking an item, and then clicking [Delete].
(3)	**[Move Up]/ [Move Down]**	Sorts the batch capture items. Selecting an item and clicking [Move Up] or [Move Down] moves an item up or down by one line. You can also perform the same operation by selecting and right-clicking an item, and then clicking [Move Up] or [Move Down].
(4)	**Batch capture list**	**[Status]** Displays the recording progress. When an error occurs, displays the error detail. **[No]** Displays the serial number corresponding to the suffix of the clip name generated after the batch capture. **[Reel]** Displays the reel name.

(4)	**Batch capture list**	**[In TC]/[Out TC]/[Dur TC]** Displays the timecode of In point/Out point/ duration. The timecode to be prioritized when recording is underlined. To change the prioritized timecode, select and right-click an item, and then click [Change to "In/Out Capture"] or [Change to "In/Dur Capture"].
(5)	**[Count:]**	Displays the total number of the batch capture items.
(6)	**[Duration:]**	Displays the total duration in the batch capture list.

TIP • Select and right-click an batch capture item, and then click [Select All] to select all items.

6 Press the [Rec] button.

If batch capture items with different reel names set exist in the batch capture list, a message appears. Insert a tape corresponding to the reel name into the VTR and click [OK]. (If the same reel names are set in all batch capture items, or if no reel name is set, the message will not appear and recording starts.)
Recording starts and the progress is displayed in [Status].
If you stop the batch capture in the middle, click [Stop].
Clips that have been completed recording are stored in the specified bin.

Displaying media files in network drive

You can display media files in the network drive at the [Browse] tab by making settings of the network drive connected to T2 in the workstation mode.

1 Click [Config.], and click the [General] -> [Network-3] tab.

General – Network-3 settings►P171

2 Click [Add...].

The [Map Network Drive] dialog box appears.

3 Assign a drive letter to [Drive:].

4 In the [Folder:] entry area, enter the “server name and shared folder” or “IP address and shared folder”, and then click [OK].

You can click [Browse...] to specify the path of the network drive.

5 Click [OK].

6 Display the [Browse] tab.

[Browse] tab►P149

The drive letter assigned in step 3 is displayed in the removable media list.

7 Click […] at the right of the drive letter, and select a folder in the network drive, and then click [OK].

The contents in the network drive are displayed in the media file list.

TIP

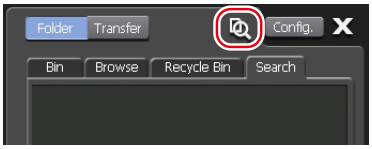
- To save the specified recording destination on the external media/storage after restarting T2, click [Config.], click [General] -> [Miscellaneous] tab, and then check [Keep the connections on the browse tab].

Searching for contents

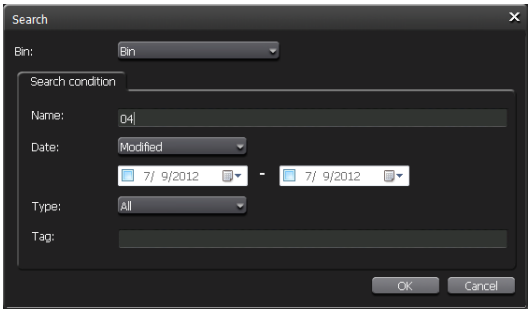
You can specify search conditions and search for contents in the bin.

1 Click [Search Contents].

This operation is available in the [Bin] tab or [Search] tab.



➢ [Search] dialog box



[Bin:]	Select the search target bin from the list.

[Search condition]	Specify search conditions. If multiple conditions are specified, AND search will be performed. **[Name:]** Enter the contents name to search. **[Date:]** Select [Modified] or [Created], click the icon on the calendar, and set the date. **[Type:]** Select [SD] or [HD] from the list. **[Tag:]** Enter the tag added to the contents.

2 Select a search target bin from the list of [Bin:].

3 Specify search conditions and click [OK].

The search starts.
The contents that matches the search conditions are displayed in the contents list in the search result folder of the [Search] tab.
[Search] tab►P151

TIP
- To change the search conditions, right-click the search result folder and click [Change Search Criteria...].
- To delete the search result folder, right-click the search result folder and click [Clear].
- To change the name of the search result folder, right-click the search result folder and click [Rename].

Changing the display of playlist view

Changing the display of event list

You can switch the display of event list to the icon view or list view without thumbnail.

1 Right-click on the event list and click [View] -> the display option ([Icons]/[Tiles]/[List]/[Details]).

TIP

- If keyboard shortcuts are assigned to events and one of [Icons]/[Tiles]/[List] is selected for the view, an icon is displayed on the thumbnail.
  - A red icon indicates the shortcut assigned to the event of the selected channel.
  - A black icon indicates the shortcut assigned to the event of the specified channel.
- If one of [Icons]/[Tiles]/[List] is selected for the view, you can change the display size of the thumbnail. Right-click on the event list and click [View] -> [Thumbnail Size] -> the display size ([Large]/[Middle]/[Small]).

Changing the display or background color of events

You can change the settings of the event view style and background color.

1 Right-click on the event list and click [View] -> [Customize...].

The [Playlist View Style:] dialog box appears.
[Playlist View Style:] dialog box (workstation mode only)►P179

2 Configure the settings, and then click [OK].

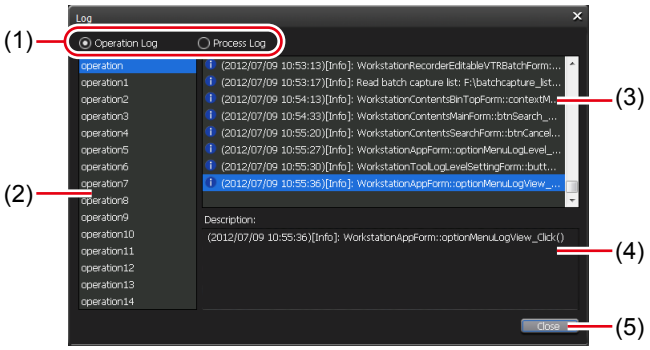
Checking logs of operations and processes

Displaying a log

You can output logs of operations and processes. Use it to find out the cause of troubles.

1 Click [Option] on the menu bar, and then click [Log] -> [Show log...].

➢ [Log] dialog box



(1)	**Output log switching**	Selects [Operation Log] to display operation logs, and select [Process Log] to display process logs.
(2)	**Group list**	Displays the list of groups for operations or processes. A group is created daily (or when the log data exceeds 10 MB).
(3)	**Log list**	Displays the log list of the group selected in the group list.
(4)	**[Description:]**	Displays the explanation for the log selected in the log list.
(5)	**[Close]**	Closes the dialog box.

TIP

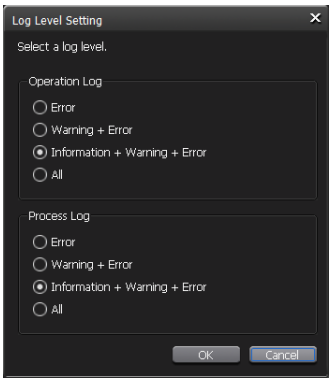
- When an error occurs, you can also display the [Log] dialog box by clicking the notification icon on the status bar.

Changing log level settings

You can change the output log levels of operations and processes.
By the default setting, information, warning, and error will be output.

1 Click [Option] on the menu bar, and then click [Log] -> [Logging level...].

➢ [Log Level Setting] dialog box



[Operation Log]	Selects the type of operation log to output. **[Error]** Outputs only error logs. **[Warning + Error]** Outputs warning and error logs. **[Information + Warning + Error]** Outputs information, warning, and error logs. **[All]** Outputs all logs including debug information.
[Process Log]	Selects the type of process log to output. **[Error]** Outputs only error logs. **[Warning + Error]** Outputs warning and error logs. **[Information + Warning + Error]** Outputs information, warning, and error logs. **[All]** Outputs all logs including debug information.

2 Configure the settings, and then click [OK].

Section 10

Settings

This section describes items that you can set in the setting screen.

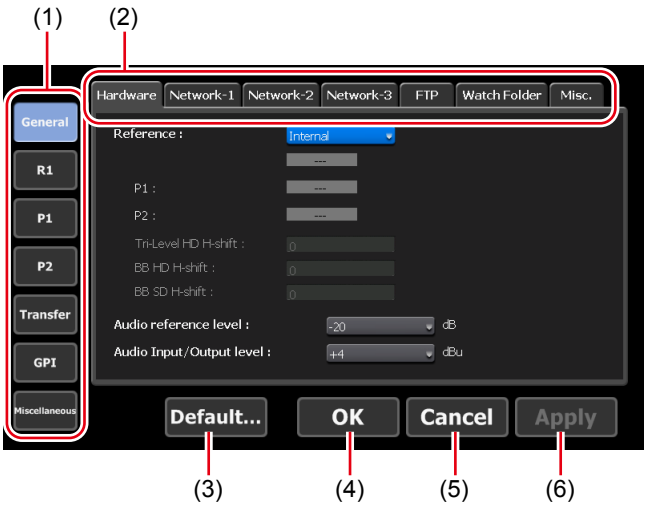
Displaying the setting screen

You can make settings in the setting screen.

1 Tap [Config.].

The configuration screen appears.

➢ Settings



(1)	**Main category**	Switches the main category of each setting. By tapping, displays the sub category tabs included in the main category.
(2)	**Sub category tab**	By tapping, displays the detailed settings of the sub category.
(3)	**[Default...]**	Restores all the settings made in the setting screen to the default. To enable the settings, you must restart your T2.
(4)	**[OK]**	Saves the current settings and closes the setting screen.

(5)	[Cancel]	Closes the setting screen without saving the current settings.
(6)	[Apply]	Saves the current settings. You can keep on making settings of other items.

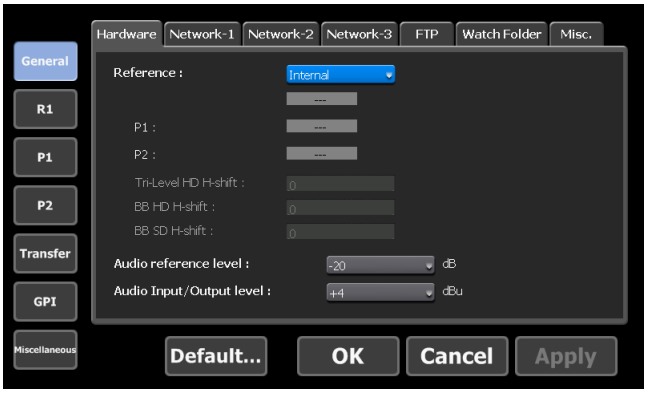
General settings

General – Hardware settings

You can set synchronization or audio level between an external device connected to your T2.

1 Tap [General], and then tap the [Hardware] tab in the setting screen.

➢ [Hardware] tab



[Reference:]	Selects a sync signal from [External], [Input], and [Internal]. The signal status (NO SIGNAL/SYNC OK) will be displayed in the lower line. **[P1:]** If the sync signal has been synchronized with the P1 channel, displays [SYNC OK]. **[P2:]** If the sync signal has been synchronized with the P2 channel, displays [SYNC OK]. **[Tri-Level HD H-shift:]** When HD3 value REF is used, adjusts REF phase by entering a value. (Only when [External] is selected.)

[Reference:]	**[BB HD H-shift:]** When SD Black Burst REF is used for HD REF, adjusts REF phase by entering a value. (Only when [External] is selected.) **[BB SD H-shift:]** When SD Black Burst REF is used for SD REF, adjusts REF phase by entering a value. (Only when [External] is selected.)
[Audio reference level:]	Selects the audio reference level (Headroom) from the list.
[Audio Input/Output level:]	Selects the audio input/output level from the list.

2 Set each item and tap [OK].

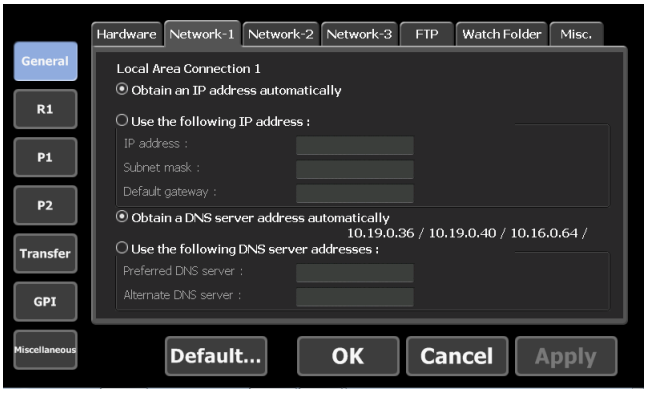
Tap [Apply] to keep on making settings of other items.

General – Network-1/Network-2 settings

You can make network settings of your T2.

1 Tap [General], and then tap the [Network-1] tab or [Network-2] tab in the setting screen.

➢ [Network-1]/[Network-2] tab



[Obtain an IP address automatically]	Uses DHCP and sets an IP address automatically.

[Use the following IP address:]	Used to connect to the local area network by specifying the IP address, subnet mask, and default gateway. **[IP address:]** Specifies an IP address. **[Subnet mask:]** Specifies a subnet mask. **[Default gateway:]** Specifies a default gateway.
[Obtain a DNS server address automatically]	Uses DHCP and sets a DNS server address automatically.
[Use the following DNS server addresses:]	Used to connect to the local area network by specifying the address of the preferred DNS server and an alternate DNS server. **[Preferred DNS server:]** Specifies the address of the preferred DNS server. **[Alternate DNS server:]** Specifies the address of an alternate DNS server.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

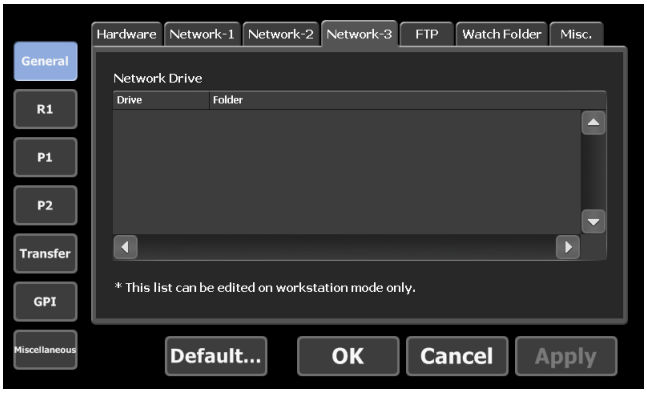
Tap [Apply] to keep on making settings of other items.

General – Network-3 settings

You can set the network drive to connect with your T2.

1 Tap [General], and then tap the [Network-3] tab in the setting screen.

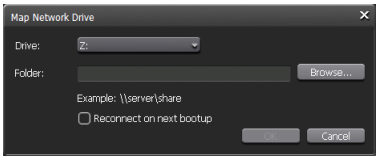
➢ [Network-3] tab



Network drive list	Displays the list of currently set network drives.
[Add...]*	By clicking, displays the [Map Network Drive] dialog box and adds a network drive. **[Map Network Drive] dialog box (workstation mode only)►P172**
[Disconnect]*	Disconnects the network drive.

*Only available in the workstation mode.

➢ [Map Network Drive] dialog box (workstation mode only)



[Drive:]	Assigns a drive letter to a network drive.
[Folder:]	Enter the “server name and shared folder” or “IP address and shared folder” in the entry area. You can click [Browse...] to specify the path of the network drive.
[Reconnect on next bootup]	By checking, restores the network drive allocations on the next start-up of T2.

2 Set each item and tap [OK].

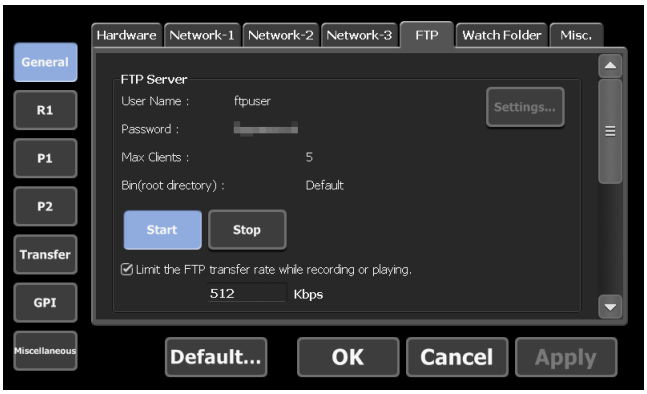
Tap [Apply] to keep on making settings of other items.

General – FTP settings

You can configure FTP settings when T2 is used as FTP server, or the destination when external FTP server is used for a file transfer destination.

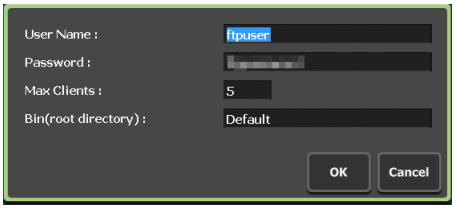
1 Tap [General], and then tap the [FTP] tab in the setting screen.

➢ [FTP] tab



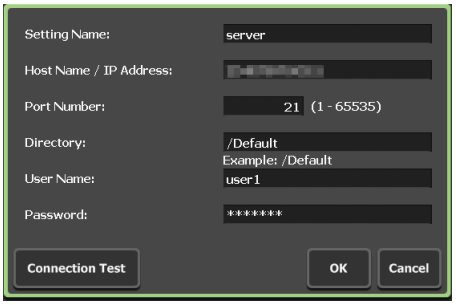
[FTP Server]	Displays the FTP settings when T2 is used as FTP server. **[Settings...]** By tapping, configures FTP settings for T2. Tapping it displays the FTP setting dialog box for T2 to configure the settings. **FTP setting dialog box for T2►P175** **[Start]** Sets and uses T2 as FTP server. **[Stop]** Releases the setting and stops using T2 as FTP server. **[Limit the FTP transfer rate while recording or playing.]** By checking, automatically restricts FTP transfer rate while recording or playing. Tapping the entry area allows to change the limit value of the transfer rate. Different limit values can be specified for uploading and downloading, and when uploading and downloading are performed simultaneously, the transfer rate will be the double of the set value. If this option is unchecked, the recording/playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
[FTP Export List]	Displays the list of the FTP servers set as file transfer destinations. **[Add...]** Tapping it displays the FTP destination setting dialog box to configure the destination server. **FTP destination setting dialog box►P175** **[Delete]** Deletes a server from [FTP Export List]. **[Change...]** Changes the server settings.

➢ FTP setting dialog box for T2



[User Name:]/ [Password:]	Enter a user name and password.
[Max Clients:]	Specifies the maximum number of users allowed to access the FTP server of T2.
[Bin(root directory):]	Specifies the bin to store media files uploaded to the root directory.

➢ FTP destination setting dialog box



[Setting Name:]	Enter the server setting name.
[Host Name/IP Address:]	Enter the IP address or host name of the FTP server.
[Port Number:]	Enter a port number (1 to 65535).
[Directory:]	Enter the address of file transfer destination folder (bin).
[User Name:]/ [Password:]	Enter a user name and password.
[Connection Test]	By tapping, tests the FTP connection with the entered user name and password.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

General – WatchFolder settings

You can set WatchFolder (shared folder) to import media files to T2 via network.

TIP

- Media files copied to the WatchFolder of the internal storage will be deleted after the import operation.
- If you copy media files to the WatchFolder of the internal storage, recording or playback may be affected.

1 Tap [General], and then tap the [WatchFolder] tab in the setting screen.

➢ [WatchFolder] tab

[Destination :]	Selects the saving destination bin for the media files to be imported.
[Set folder in local storage as watch folder]	By checking, monitors the shared folder of the internal storage as WatchFolder. Indicates the WatchFolder name, and user name and password to access the WatchFolder. To enable the settings, you must restart your T2.
[Set external folder in external media / storage as watch folder.]	By checking, allows to set a folder on an external media or storage as WatchFolder. To enable the settings, you must restart your T2.
[Path :]	Specifies the folder to monitor as WatchFolder.

2 Set each item and tap [OK].

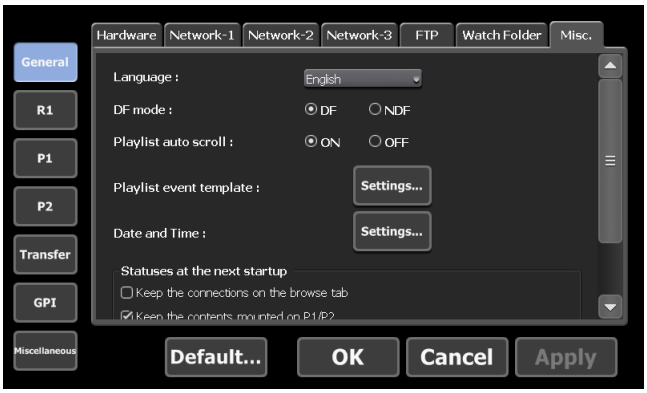
Tap [Apply] to keep on making settings of other items.

General – Miscellaneous settings

You can configure display language for T2 software, restart status, or other settings.

1 Tap [General], and then tap the [Miscellaneous] tab in the setting screen.

➢ [Miscellaneous] tab

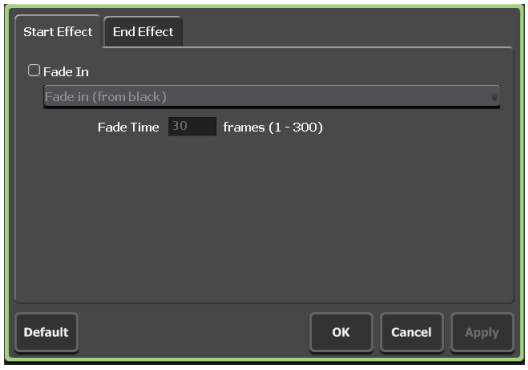


[Language:]	Selects the display language for T2 software from the list. To enable the settings, you must restart your T2.
[DF mode:]	Select [DF] to set drop frame display to timecode, or select [NDF] to set non-drop frame display.
[Playlist auto scroll:]	Sets whether to scroll the event list automatically when playing a playlist.
[Playlist event template:]	By tapping [Settings...], sets the effect as the event template of the playlist. The template setting is applied to newly added events. **The event template setting dialog box►P178**
[Playlist View Style:][*1]	By clicking [Settings...], changes the settings for event display or event background color in the workstation mode. **[Playlist View Style:] dialog box (workstation mode only)►P179**
[Playlist Placeholder][*1]	By clicking [Settings...], configures the settings to secure the space for events to be added to playlists before actually adding an event to a playlist. **[Playlist Placeholder] dialog box (workstation mode only)►P180**

[Preview update interval:]*1	By clicking [Settings...], sets the update interval of preview of the R1/P1/P2 channel. **[Preview update interval:] dialog box (workstation mode only)►P180**
[Date and Time :]	By tapping [Settings...], sets the date and time. **Date and time ssetting dialog box►P181**
[Status at the next startup]	Sets whether to restore the status of the time when exiting T2 at the next start-up. **[Keep the connections on the browse tab]** By checking, restores the removable media connection status displayed in the [Browse] tab. The removable media state displayed in the [Browse] tab will be updated at the next start-up. **[Automatically playback the mounted contents on P1/P2]** By checking, restores the contents status loaded to the P1/P2 channel. By checking [Keep the playback frame positions on P1/P2], restores the scrubbing bar playing position. Checking [Automatically playback the mounted contents on P1/P2] plays the contents loaded to the P1/P2 channel automatically at the next start-up. * The names or In/Out points of media files loaded directly from the [Browse] tab cannot be restored.

*1 Only available in the workstation mode.

➢ The event template setting dialog box

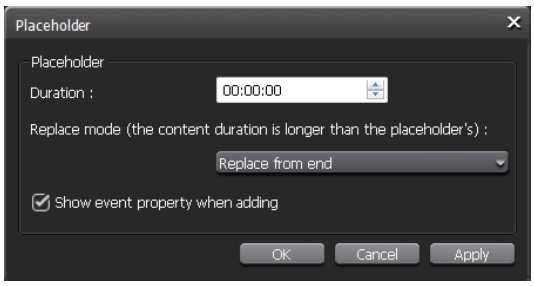


[Start Effect] tab	Sets the effects for event starting (start effects). **Event – [Start Effect] tab►P110**
[End Effect] tab	Sets the effects for event ending (end effects). **Event – [End Effect] tab►P111**
[Default]	Deletes event template settings.

➢ [Playlist View Style:] dialog box (workstation mode only)

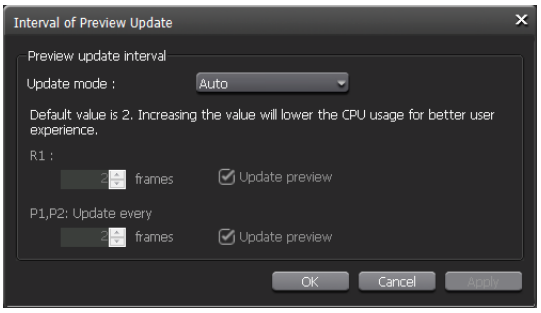
[Current Event Background Color:]	Sets to show/hide the background color indicating that the event has the playback position on the scrubbing bar. To change the background color, check this item and specify the value for R, G, and B. The specified color is displayed on the right.
[Nest Event Background Color]	Sets to show/hide the background color indicating the next event of the event that has the playback position on the scrubbing bar. To change the background color, check this item and specify the value for R, G, and B. The specified color is displayed on the right.
[Selected Event Background Color]	Sets to show/hide the background color indicating the selected event. To change the background color, check this item and specify the value for R, G, and B. The specified color is displayed on the right.
[Show keyboard shortcuts(A-Z, Function, 0-9 Key only)]	Sets to show/hide the keyboard shortcut icon assigned to the event. * Icons can be shown only when the [A] to [Z] keys, function keys, and [0] to [9] keys on the keyboard are assigned.
[Show progress bar]	Sets to show/hide the progress bar of the playback.

➢ [Playlist Placeholder] dialog box (workstation mode only)



[Duration:]	Sets the duration of the place holder (hour/ minute/second).
[Replace mode (the content duration is longer than the placeholder's):]	Allows to select the replace mode from the list if the duration of the source is longer than that of the set place holder. [Replace] Replaces with a place holder maintaining the length of the source. [Replace from start] Replaces only the duration of the place holder from the In point. [Replace from end] Replaces only the duration of the place holder from the Out point.
[Show event property when adding]	By checking, displays the property screen of the place holder.

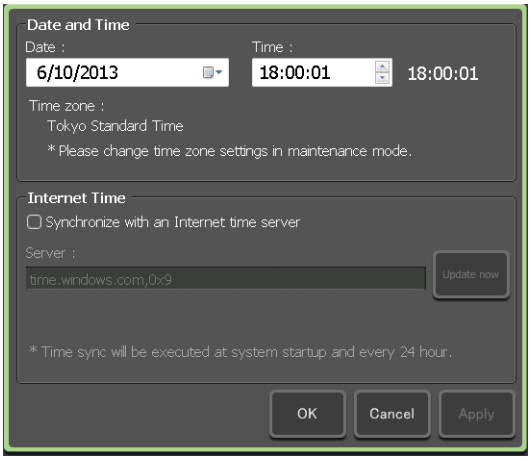
➢ [Preview update interval:] dialog box (workstation mode only)



[Update mode:]	To set the update interval of preview automatically, select [Auto], and to set it manually, select [Manual].

[R1:]/ [P1, P2: Update every]	Set when [Manual] is selected in [Update mode;]. Enter the number of frames in [frames] of [R1:] or [P1, P2: Update every]. If the value is larger, the preview update interval becomes longer. (By default, the preview is updated every two frames.) If you do not want to update the preview, uncheck [Update preview].

➢ Date and time ssetting dialog box



[Date :]	By clicking the icon on the calendar, sets the date.
[Time :]	Sets the time.
[Time zone :]	Displays the current time zone setting. This setting can be changed in the maintenance mode. For more information about the maintenance mode, refer to the T2 Maintenance Manual.
[Internet Time]	Checking [Synchronize with an Internet time server], and then restarting or clicking [Update now] synchronizes with the Internet time server. Synchronization of time can be set from 1 to 24 hours. (Workstation mode only)

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

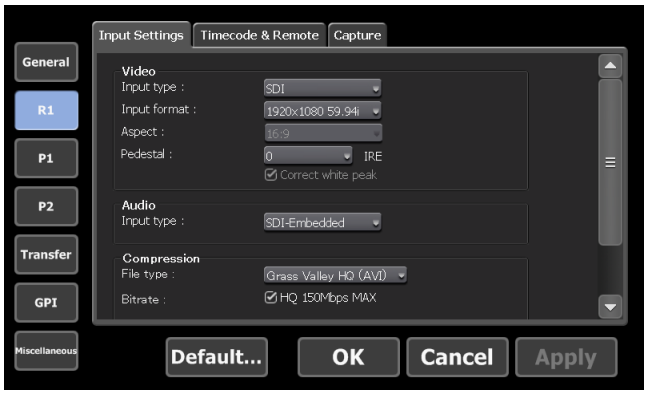
R1 settings

R1 – Input Settings

You can make settings for input format to record in the R1 channel.

1 Tap [R1], and then tap the [Input Settings] tab in the setting screen.

➢ [Input Settings] tab



[Video]	**[Input type:]** Selects the port used for video input. **[Input format:]** Selects the format for video input. **[Aspect:]** For SD input, selects the aspect ratio. **[Pedestal:]** Selects the setup level (black level) for NTSC from 0IRE and 7.5IRE. 0IRE is used in Japan, and 7.5IRE is used in North America. Checking [Correct white peak] performs white peak correction.
[Audio]	**[Input type:]** Selects the port used for audio input from [Analog], [Digital], and [SDI-Embedded].

[Compression]	**[File type :]** Selects the compression format from [Grass Valley HQ(AVI)], [XDCAM HD422(MXF)], [XDCAM HD(MXF)], [XDCAM IMX(MXF)], and [XDCAM DV(MXF)]. **[Bitrate :]** Selects a bit rate that supports the compression format. **[HQ 150Mbps MAX]** By checking, restricts the compression ratio of Grass Valley HQ Codec to 150 Mbps. **[Audio format :]** Selects an audio format that supports the compression format. **[ClosedGOP]** By checking when the format is MXF, the information are closed within GOP. It increases the data size, but allows re-editing with editor software that can handle GOP. Uncheck it normally.

TIP
- You can load a file being recorded to an external media/storage to EDIUS, and operate time-shift editing.
- When recording data in Grass Valley HQ (AVI format), chasing playback is available.

NOTE
- When recording data in the MXF (XDCAM HD422/HD/IMX/DV) format, playback cannot be operated on all of the sources. The playback will be stopped.
- When recording data in the MXF (XDCAM HD422/HD/IMX/DV) format, chasing playback, chasing export, and format conversion are not available.

Loading and playing back video currently recorded (chasing playback)►P100

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

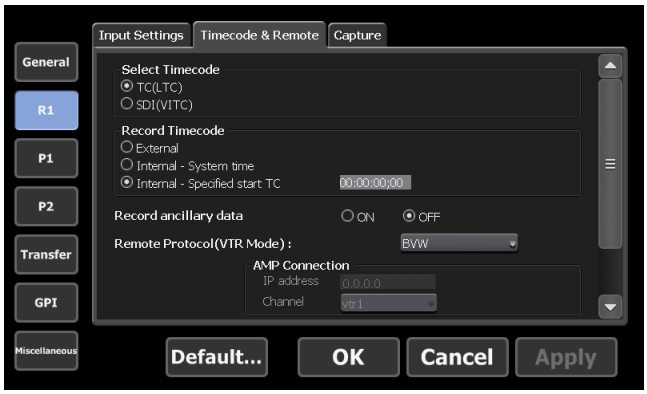
R1 – Timecode & Remote settings

You can make settings for the timecode or R1 channel remote control when recording in the R1 channel.

1 Tap [R1], and then tap the [Timecode & Remote] tab in the

setting screen.

➢ [Timecode & Remote] tab



[Select Timecode]	Selects the timecode type from [TC(LTC)] and [SDI (VITC)].
[Recorded Timecode]	Selects the timecode to use for recording. To use the timecode of an external device, select [External]. To use the time of T2, select [Internal - System time]. If [Internal - Specified start TC] is selected, tap the entry area and specify the timecode.
[Record ancillary data]	Sets whether to save the VANC data when recording. For MXF format data, stores the ancillary data according to SMPTE 436M. In this case, ancillary data can be exported to a device that supports SMPTE 436M.
[Remote Protocol(VTR Mode):]	When controlling a VTR from T2 in the R1-VTR mode, selects remote protocol (AMP/BVW). If [AMP] is selected, set the IP address and channel of the VTR in [AMP Connection].
[Remote Protocol(Remote Mode):]	When controlling a VTR from an external controller in the R1-remote mode, selects a remote protocol (AMP/BVW). Check [Enable local operations while being remote controlled.] to operate T2 locally even in the remote mode.

TIP

- If [Enable local operations while being remote controlled.] is checked, the operations available in the R1-remote mode are as follows.
  - Recording and stop
  - Entering a clip name
  - Editing tags (workstation mode only)
  - Displaying properties
  - Unloading clips

2 Set each item and tap [OK].

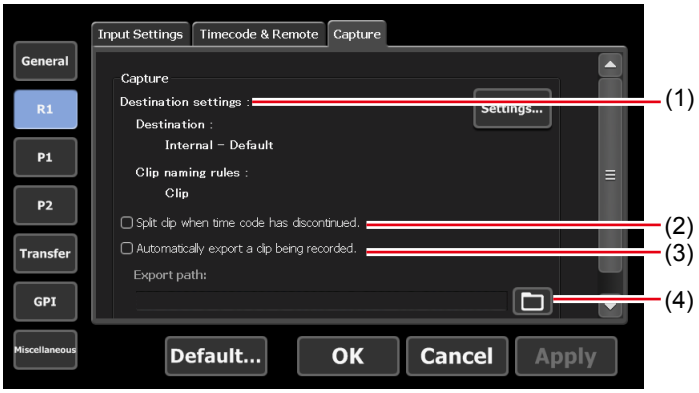
Tap [Apply] to keep on making settings of other items.

R1 – Capture settings

You can set whether to automatically export files being recorded in the R1 channel.

1 Tap [R1], and then tap the [Capture] tab in the setting screen.

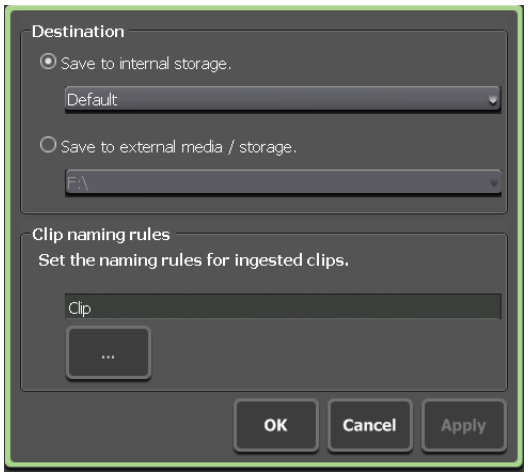
➢ [Capture] tab



(1)	**[Destination settings :]**	Indicates the saving destination of the clips to be recorded and other information. Tapping [Settings...] allows to set the saving destination. **Saving destination dialog box►P186**
(2)	**[Split clip when time code has discontinued.]**	By checking, divides clips when saving.
(3)	**[Automatically export a clip being recorded.]**	By checking, exports the file being recorded in the R1 channel to the specified location automatically.

(4)	[Export path:]	By tapping, allows to specify the export destination.

➢Saving destination dialog box



[Destination]	Selects the saving destination of the clips to be recorded. To save the clips to T2, select [Save to internal storage.], and then select the bin that is registered to T2 from the list. In the workstation mode, clips can be stored in the selected bin. To save the clips to a destination other than T2, select [Save to external media / storage.]. If <non-registered> is indicated, set the external storage in advance. **Displaying media file in removable media►P60**
[Clip naming rules]	Sets the naming rule of clips to be saved. Tapping the entry area allows to enter the clip name. Clicking [...] enters [Date] and/or [Time] after the clip name automatically.

TIP
- If the data cannot be saved to an external storage at the time when recording starts, it is saved to the internal storage.
- If writing does not catch up, the recording will be stopped.
- For external media/storages that have been operation verified, see our website.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

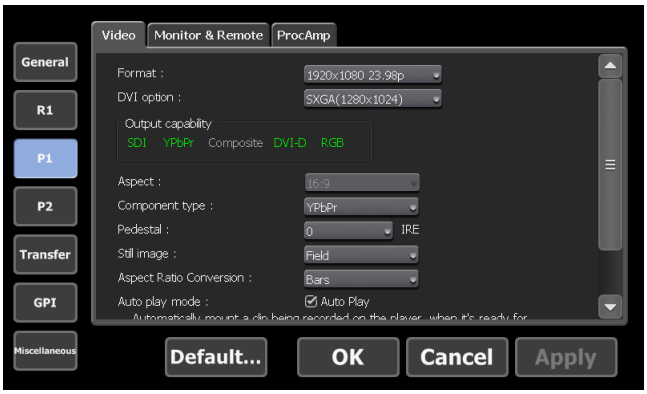
P1/P2 settings

P1/P2 – Video settings

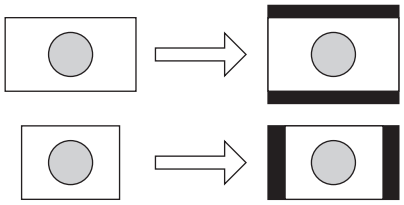
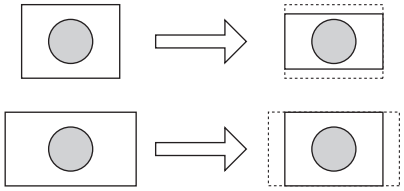
You can make settings for output format to load video to the P1/P2 channel and play it.

1 Tap [P1] (or [P2]), and then tap the [Video] tab in the setting screen.

➢ [Video] tab



[Format:]	Selects the format for video output.
[DVI option:]	When DVI/RGB output format is used, selects the resolution to use.
[Output capability]	According to the items selected in [Format:] and [DVI option:], displays the ports available for output with green highlights.
[Aspect:]	For SD, selects the aspect ratio from [4:3] and [16:9].
[Component type:]	Selects the analog signal type output from the DVI-I port.
[Pedestal:]	Selects the setup level (black level) for NTSC from 0IRE and 7.5IRE. 0IRE is used in Japan, and 7.5IRE is used in North America.

[Still image:]	Selects the display mode when playback has paused. Selecting [Field] performs field corrections between still images. The video is displayed in a smooth still image. Selecting [Frame] displays the top field and bottom field alternately. The video is displayed to be shaking.
[Aspect Ratio Conversion:]	Selects how conversion is to be performed when the aspect ratio of the source loaded to the P1 channel (or P2 channel) differs from the channel settings. Selecting [Bars] displays black bars in the upper and lower or in the right and left.  Selecting [Crop] cuts the upper and lower parts or the right and left parts. 
[Auto play mode:]	Checking [Auto Play] automatically plays the video when a source is loaded to the P1 channel (or P2 channel).
[Automatically mount a clip being recorded on the player, when it's ready for playback.]	By checking, automatically loads a source being recorded in the R1 channel to the P1 channel (or P2 channel) when the source become transmittable.
[When a subclip is created in R1, automatically mount it in the playlist of the player.]	By checking, automatically adds a sub clip created in the R1 channel to a playlist loaded to the P1 channel (or P2 channel).

NOTE

- Even when [Automatically mount a clip being recorded on the player, when it's ready for playback.] or [When a subclip is created in R1, automatically mount it in the playlist of the player.] was checked, they do not work in the following cases.
  - The specified channel is locked or the sync mode is set to on
  - The specified channel is in the Fill/Key signal output mode
  - In the workstation mode, clips can be stored in the selected bin.ecified channel is in the remote mode (except when the local operations are enabled in the remote mode)
  - Recording of the MXF format data is being performed

2 Set each item and tap [OK].

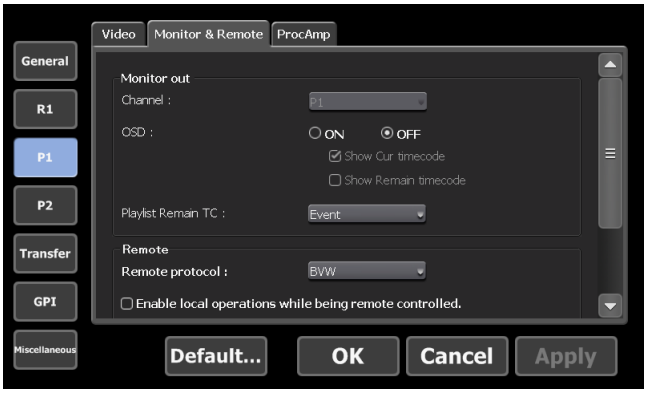
Tap [Apply] to keep on making settings of other items.

P1/P2 – Monitor & Remote settings

You can make settings for the monitor output from P1/P2 output section and remote control of P1/P2 channel.

1 Tap [P1] (or [P2]), and then tap the [Monitor & Remote] tab in the setting screen.

➢ [Monitor & Remote] tab



[Monitor out]	Makes settings for monitor output. **[Channel:]** Selects the channel for monitor output. The channel that can be output from the P1 output section is fixed to [P1]. The channel that can be output from the P2 output section is selectable from [R1], [P1], and [P2]. **[OSD:]** Selects whether to show the on-screen display on the monitor. Checking [Show Cur timecode] displays the current timecode on the on-screen display. Checking [Show Remain timecode] displays the remaining time on the on-screen display. **[Playlist Remain TC:]** Selects the display style for the remaining time of playlist for on-screen display. Selecting [Event] displays the remaining time of the event. Selecting [Total] displays the remaining time of the whole playlist.
[Remote protocol:]	When controlling T2 from an external controller in the P1-remote mode (or P2-remote mode), selects a remote protocol (AMP/BVW).
[Enable local operations while being remote controlled.]	By checking, allows to operate T2 locally even in the remote mode.
[Preroll :]	Rewinds a short duration of time before the In point and starts playback from the point.
[Postroll :]	Allows to set the playback duration by the seconds in order to play back video later than the Out point.

TIP

- If [Enable local operations while being remote controlled.] is checked, the operations available in P1-remote mode (or P2-remote mode) are as follows.
  - Scrubbing bar operations (workstation mode only)
  - Playback control operations (move to the first frame, rewind, frame reverse, stop, playback, frame forward, fast forward, and move to the last frame)
  - Moving to In/Out points, setting In/Out points, deleting In/Out points, creating sub clips
  - Switching display scale of the scrubbing bar
  - Switching audio level display
  - Creating thumbnail
  - Entering names of clips/playlists
  - Editing tags (workstation mode only)
  - Entering values for In point/Out point/duration, setting In point/Out point/duration
  - Editing playlist events list (add, delete, sort, copy, paste, and change names)
  - Displaying properties
  - Loading and unloading clips/playlists
  - Switching on/off for the sync mode, E to E mode, Loop mode
  - Operations with buttons on the lower part of the LCD

2 Set each item and tap [OK].

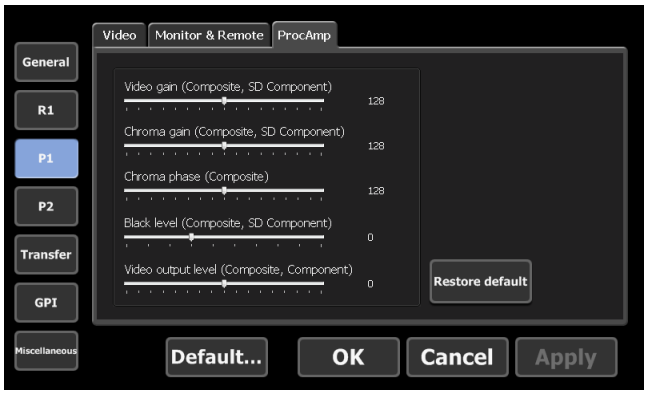
Tap [Apply] to keep on making settings of other items.

P1/P2 – Image quality adjustment settings

You can make adjustment of the image quality when video is composite output or SD component output from the P1/P2 channel.

1 Tap [P1] (or [P2]), and then tap the [ProcAmp] tab in the setting screen.

➢ [ProcAmp] tab



[Video gain (Composite, SD Component)]	Adjusts the Y gain.
[Chroma gain (Composite, SD Component)]	Adjusts the C gain.
[Chroma phase (Composite)]	Adjust the color of video.
[Black level (Composite, SD Component)]	Adjusts the black level.
[Video output level (Composite, Component)]	Performs fine adjustment of amplitude.
[Restore default]	Restores the settings made in the [ProcAmp] tab to default.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

Transfer settings

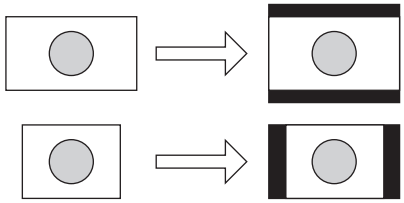
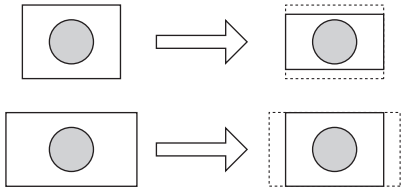
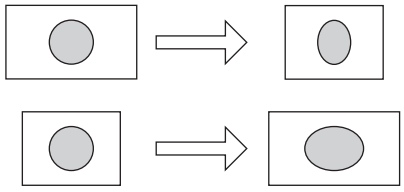
Transfer – common settings

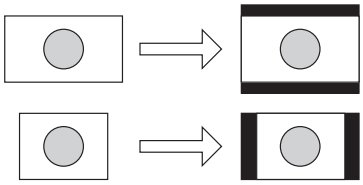
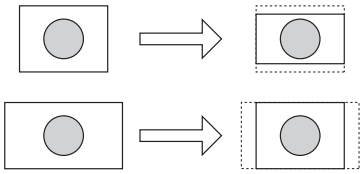
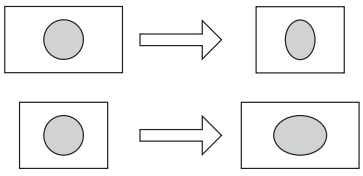
You can make settings for file transfer.

1 Tap [Transfer], and then tap the [Common] tab in the setting screen.

➢ [Common] tab

[Pause file transfers while recording or playing out.]	By unchecking, enables transfer and conversion even during a recording or playback. However, if this option is unchecked, the recording/ playback operations may not be performed normally, therefore, we recommend that you use the system with this option checked.
[Clip import configuration]	Selects the field order when importing Windows Media Audio and H.264 (QuickTime Video (avc1)). Selecting [Auto] automatically selects and sets the appropriate field order.

[Configure clip import (for not supported profile)]	Sets the frame size and scaling method when importing media files that do not match the profile supported by T2. **[Size:]** Selects the frame size for import. **[Scaling:]** Selects the scaling method when the frame size of the imported source differs from that set in [Size:]. Selecting [Bars] displays black bars in the upper and lower or in the right and left, to fit the long sides of the frame of the source to that set in [Size:].  Selecting [Crop] cuts the upper and lower parts or the right and left parts, to fit the short sides of the frame of the source to that set in [Size:].  Selecting [Stretch] stretches or reduces the whole image, to fit the frame size of the source to that set in [Size:]. 

[Configure import of image and images in a sequence format]	Makes settings for import of still images or sequence still images. **[Format:]** Selects the format for import. **[Aspect:]** For SD, selects the aspect ratio from [4:3] and [16:9]. **[Scaling:]** Selects the scaling method when the frame size of the imported source differs from that of the format set in [Format:]. Selecting [Bars] displays black bars in the upper and lower or in the right and left, to fit the long sides of the frame of the source to that of [Format:].  Selecting [Crop] cuts the upper and lower parts or the right and left parts, to fit the short sides of the frame of the source to that of [Format:].  Selecting [Stretch] stretches or reduces the whole image, to fit the frame size of the source to that of [Format:].  **[Duration(still image):]** Sets the playback duration of the imported still images by seconds.

2 Set each item and tap [OK].

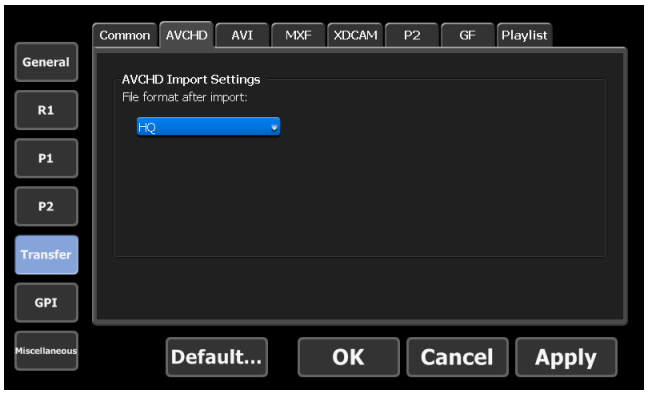
Tap [Apply] to keep on making settings of other items.

Transfer – AVCHD settings

You can make settings for the format to import AVCHD sources.

1 Tap [Transfer], and then tap the [AVCHD] tab in the setting screen.

➢ [AVCHD] tab



[AVCHD Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [HQ] converts the files to Grass Valley HQ AVI format.

2 Set each item and tap [OK].

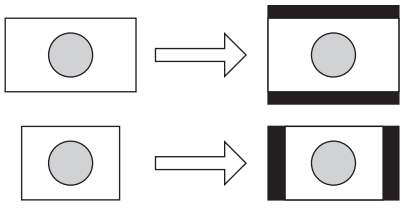
Tap [Apply] to keep on making settings of other items.

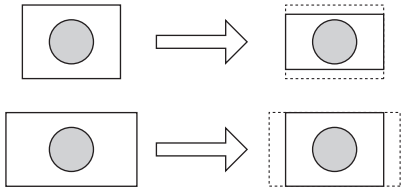
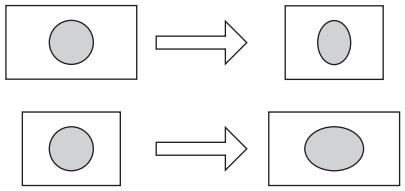
Transfer – AVI settings

You can make settings for the format when converting contents in Grass Valley HQ AVI format to MXF (XDCAM format) to export.

1 Tap [Transfer], and then tap the [AVI] tab in the setting screen.

➢ [AVI] tab

[AVI Export Settings]	**[Execute transcoding when exporting AVI file.]** By checking, converts files to the format set in [Advanced AVI transcoding settings] to export.
[Advanced AVI transcoding settings]	**[File type:]** Selects the file type. **[Format:]** Selects the format. **[Quality/Speed:]** Selects the quality. **[Scaling:]** Selects the scaling method when the frame size of the exported contents differs from that of the format set in [Format:]. Selecting [Bars] displays black bars in the upper and lower or in the right and left, to fit the long sides of the frame of the contents to that of [Format:]. 

[Advanced AVI transcoding settings]	Selecting [Crop] cuts the upper and lower parts or the right and left parts, to fit the short sides of the frame of the contents to that of [Format:].  Selecting [Stretch] stretches or reduces the whole image, to fit the frame size of the contents to that of [Format:].  **[Audio format:]** Selects the audio format. **[ClosedGOP]** By checking, the information are closed within GOP. It increases the data size, but allows re-editing with editor software. Uncheck it normally.

2 Set each item and tap [OK].

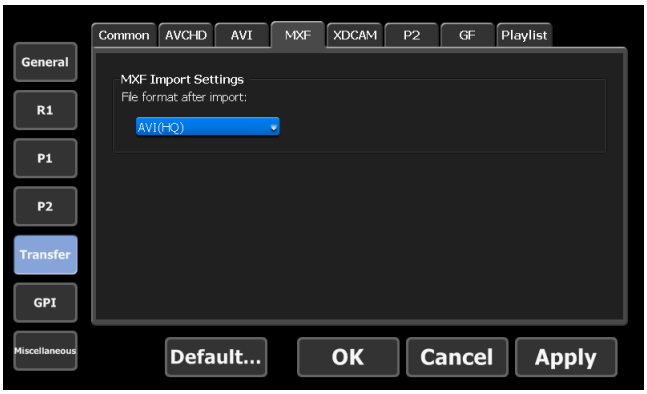
Tap [Apply] to keep on making settings of other items.

Transfer – MXF settings

You can make settings for the format to import MXF sources.

1 Tap [Transfer], and then tap the [MXF] tab in the setting screen.

➢ [MXF] tab



[MXF Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [AVI(HQ)] converts the files to Grass Valley HQ AVI format.

2 Set each item and tap [OK].

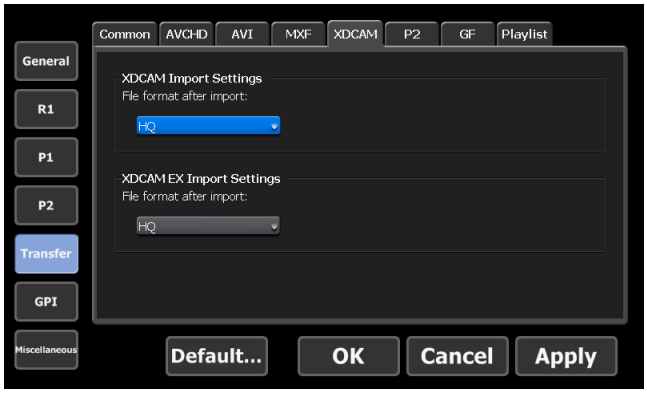
Tap [Apply] to keep on making settings of other items.

Transfer – XDCAM settings

You can make settings for the format to import XDCAM sources or XDCAM EX sources.

1 Tap [Transfer], and then tap the [XDCAM] tab in the setting screen.

➢ [XDCAM] tab



[XDCAM Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [HQ] converts the files to Grass Valley HQ AVI format.
[XDCAM EX Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [HQ] converts the files to Grass Valley HQ AVI format.

2 Set each item and tap [OK].

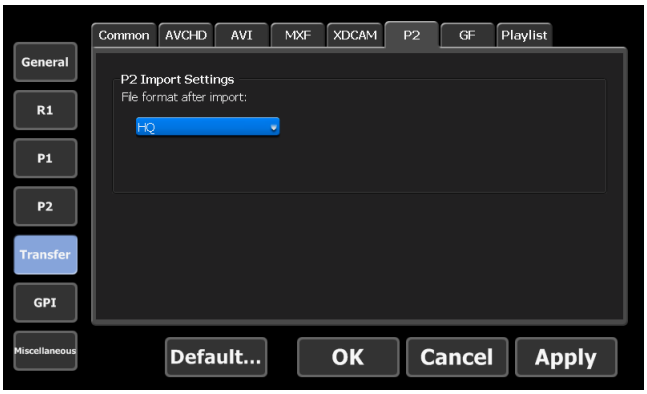
Tap [Apply] to keep on making settings of other items.

Transfer – P2 settings

You can make settings for the format to import P2 sources.

1 Tap [Transfer], and then tap the [P2] tab in the setting screen.

➢ [P2] tab



[P2 Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [P2 MXF (OP-Atom)] imports the source in the native format. Selecting [MXF (OP-1a)] converts the files to MXF (OP-1a). Selecting [HQ] converts the files to Grass Valley HQ AVI format.

2 Set each item and tap [OK].

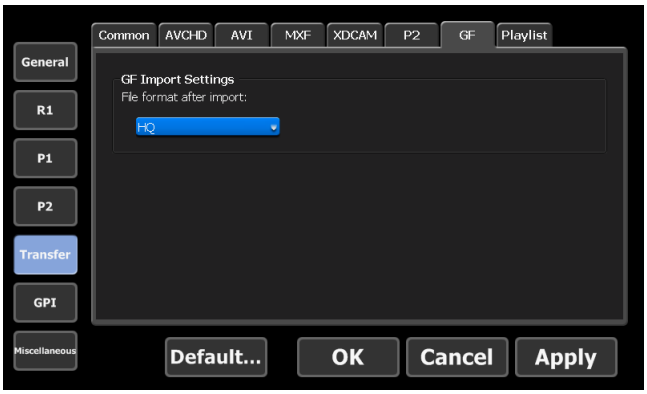
Tap [Apply] to keep on making settings of other items.

Transfer – GF settings

You can make settings for the format to import GF sources.

1 Tap [Transfer], and then tap the [GF] tab in the setting screen.

➢ [GF] tab



[GF Import Settings]	**[File format after import:]** Selects whether to import the file in the native format or in a converted format at the time of import. Selecting [GF MXF (OP-Atom)] imports the source in the native format. Selecting [HQ] converts the files to Grass Valley HQ AVI format.

2 Set each item and tap [OK].

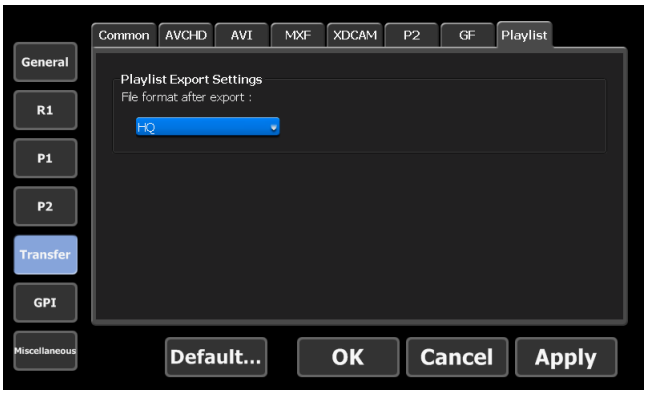
Tap [Apply] to keep on making settings of other items.

Transfer – Playlist settings

You can make settings for the format to export playlists.

1 Tap [Transfer], and then tap the [Playlist] tab in the setting screen.

➢ [Playlist] tab



[Playlist Export Settings]	**[File format after export:]** Selects the format for export. Selecting [MXF(XDCAM)] converts the files to MXF (XDCAM) and exports it. Selecting [HQ] converts the files to Grass Valley HQ AVI and exports it.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

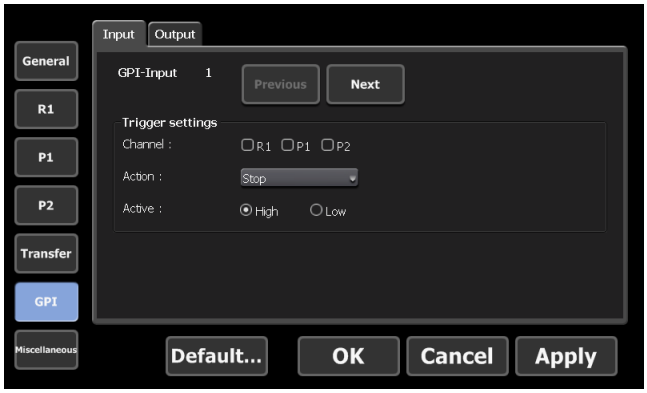
GPI settings

GPI – Input settings

You can make settings to control T2 with GPI input.

1 Tap [GPI], and then tap the [Input] tab in the setting screen.

➢ [Input] tab



[GPI-Input]	Displays the number of the selected GPI input pin. Tap [Previous] or [Next] and select a GPI input pin to set.
[Trigger settings]	Sets the GPI input trigger. **[Channel:]** Selects the channel to control with GPI input. **[Action:]** Selects the action when the GPI input pin selected in [GPI-Input] is input. **List of actions for trigger setting►P204** **[Active:]** Selects the GPI signal to activate from [High] and [Low].

➢ List of actions for trigger setting

[Stop]	Stops playback or recording.
[Play]	Plays the contents loaded to the channel.
[Record]	Starts recording.

[Rewind]	Rewinds contents. When it comes to the beginning of the loaded contents or when performing another operation, rewinding stops.
[FastFwd]	Fast forwards contents. When it comes to the end of the loaded contents or when performing another operation, fast forwarding stops.
[CueStart]	Moves to the In point of the loaded contents.
[CueEnd]	Moves to the Out point of the loaded contents.
[Eject]	Unloads the loaded contents.
[Preview]	Loads the clip that is loaded to the R1 channel to the P1 channel.
[CueNextEvent]	When loading a playlist, moves to the next event of the selected event.
[CuePrevEvent]	When loading a playlist, moves to the previous event of the selected event.
[VARPlayback]	Performs variable playback of the loaded contents in the speed specified in [VAR setting:]. **Miscellaneous – Jog/Shuttle settings►P207**

2 Set each item and tap [OK].

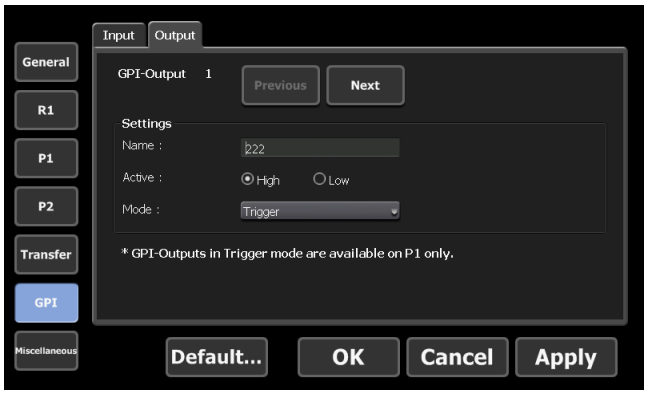
Tap [Apply] to keep on making settings of other items.

GPI – Output settings

You can make settings to control external devices by T2 with GPI output.

1 Tap [GPI], and then tap the [Output] tab in the setting screen.

➢ [Output] tab



[GPI-Output]	Displays the number of the selected GPI output pin. Tap [Previous] or [Next] and select a GPI output pin to set.
[Settings]	Sets the GPI output trigger. **[Name:]** Sets the name of the GPI output trigger. **[Active:]** Selects the GPI signal to activate from [High] and [Low]. **[Mode:]** Sets the GPI output trigger mode. Selecting [Trigger] controls an external device with GPI output by specifying a trigger for an event in the playlist loaded to the P1 channel of T2. Selecting [Tally-R1] outputs tally signal from GPI and lights up the tally lamp of the external monitor while recording in the R1 channel. Selecting [Tally-P1] (or [Tally-P2]) outputs tally signal from GPI and lights up the tally lamp of the external monitor while playing in the P1 channel (or P2 channel).

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

Other settings

Miscellaneous – Jog/Shuttle settings

You can make settings for operations of the jog/shuttle.

1 Tap [Miscellaneous], and then tap the [Jog/Shuttle] tab in the setting screen.

➢ [Jog/Shuttle] tab

[Shuttle speed:]	Selects the maximum speed for playback when playing with the jog/shuttle.
[VAR setting:]	Selects the playback speed when [VARPlayback] is selected in [Trigger settings] in the [GPI] -> [Input] tab of the setting screen.

2 Set each item and tap [OK].

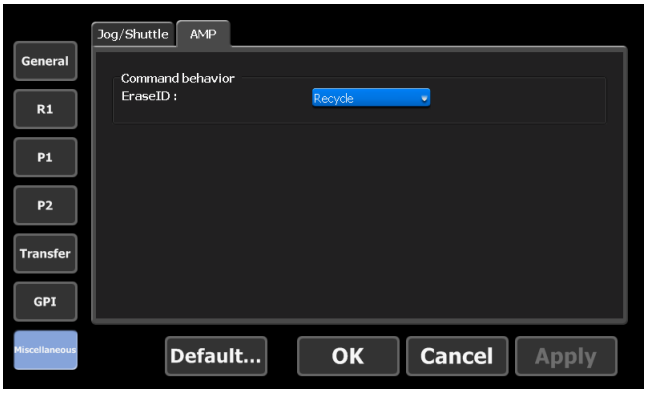
Tap [Apply] to keep on making settings of other items.

Miscellaneous – AMP settings

You can make settings for the AMP command actions when you control T2 from an external device with the AMP command.

1 Tap [Miscellaneous], and then tap the [AMP] tab in the setting screen.

➢ [AMP] tab



[Command behavior]	**[EraseID:]** Makes settings for the actions of Erase ID command of AMP. Selecting [Recycle] moves the contents to the recycle bin. Selecting [Delete] deletes the contents completely.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

Section 11

Remote Control

This section describes the remote control using GPI input/output, AMP command, and BVW command.

Remote control using AMP/BVW

Overview of AMP control

For T2, the following AMP control are available via Ethernet.

- Controlling an external device from T2 with AMP (R1-VTR mode)
- Controlling T2 from an external controller with AMP (R1-remote mode)
- Controlling T2 from an external controller with AMP (P1/P2-remote mode)

TIP • For the AMP commands list, see “Appendix”.
AMP command list►P225

NOTE • The AMP commands for T2 do not support controlling via RS-422.

Overview of BVW control

For T2, the following BVW control are available via RS422

- Controlling an external device from T2 with BVW (R1-VTR mode)
- Controlling T2 from an external controller with BVW (R1-remote mode)
- Controlling T2 from an external controller with BVW (P1/P2-remote mode)

TIP

- For the BVW list of commands used in the R1-VTR mode, see "Appendix".
  BVW command list►P238
- For the availability of BVW commands used in the remote mode, see "Appendix".
  BVW list supporting remote mode►P239
- For the input/output pin assignment of RS422, see "Appendix".
  RS422 input/output pin►P240

Controlling an external device from T2 with AMP/BVW (R1-VTR mode)

The operation of T2 to control an external device (VTR) with the AMP command (via Ethernet) or BVW command (via RS422), using T2 as a controller (master) is described in this part.
When you use the BVW command, you do not need to perform steps 1 to 3.

1. Tap [Config.] on the touch screen LCD of T2.
2. Tap [General], and then tap the [Network-1] tab or [Network-2] tab.
3. Set the IP address of T2.

General – Network-1/Network-2 settings►P170

4. Tap [R1], and then tap [Timecode & Remote].
5. Select a remote protocol from the list of [Remote Protocol(VTR Mode):].

If [BVW] is selected, proceed to step 7.

6. If [AMP] is selected in step 5, set the IP address and channel of the VTR.
7. Tap [OK].
8. Press the [R1] button, and then tap [VTR].

Controlling of an external device from T2 with AMP command or BVW command will be enabled.

Controlling T2 from an external controller with AMP/BVW (R1-remote mode)

The settings of T2 to control the R1 channel of T2 from an external controller with the AMP command (via Ethernet) or BVW command (via RS422) is described in this part.
T2 accepts commands from the external controller as a device (slave).

1 Tap [Config.] on the touch screen LCD of T2.

2 Tap [R1], and then tap the [Timecode & Remote] tab.

3 Select a remote protocol from the list of [Remote Protocol(Remote Mode):].

TIP

- Check [Enable local operations while being remote controlled.] to operate T2 locally even in the remote mode.
  R1 – Timecode & Remote settings►P183

4 Tap [OK].

5 Press the [R1] button, and then tap [Remote].

Controlling of R1 channel from an external controller with AMP or BVW command will be enabled.

Controlling T2 from an external controller with AMP/BVW (P1/P2-remote mode)

The settings of T2 to control the P1/P2 channel of T2 from an external controller with the AMP command (via Ethernet) or BVW command (via RS422) is described in this part.
T2 accepts commands from the external controller as a device (slave).

1 Tap [Config.] on the touch screen LCD of T2.

2 Tap [P1] or [P2], and then tap the [Monitor & Remote] tab.

P1/P2 – Monitor & Remote settings►P189

3 Select a remote protocol from the list of [Remote protocol:].

TIP

- Check [Enable local operations while being remote controlled.] to operate T2 locally even in the remote mode.
  P1/P2 – Monitor & Remote settings►P189

4 Tap [OK].

5 Press the [P1] button.

6 Tap [Menu], and then tap [Remote].

[Remote] will be checked.
Controlling of P1/P2 channel from an external controller with AMP or BVW command will be enabled.

TIP
- For EraseID command of AMP, you can set whether or not to delete clips completely.
  Miscellaneous – AMP settings►P208

Remote control using GPI

Overview of GPI control

For T2, the following GPI control are available.

➢ Controlling T2 with GPI input

You can control T2 by assigning actions to the GPI input port (6 pins).
GPI input will be accepted regardless whether T2 is in the remote mode or the channel is locked.
On T2, configure the settings in [GPI] -> [Input] tab of the setting screen.
GPI – Input settings►P204

NOTE
- When controlling T2 with GPI input, do not use RS422 at the same time. Controlling with RSS422 may become disabled.

➢ Controlling external devices from T2 with GPI output

Controlling external devices from T2 with GPI output►P213

➢ Tally output from GPI

You can configure your T2 to output tally signal from GPI and turn on the tally lamp of an external monitor while playing back or recording video.
On T2, configure the settings in [GPI] -> [Output] tab of the setting screen.
GPI – Output settings►P206

TIP
- For GPI input/output pin, see “Appendix”.
  GPI settings►P204

Controlling external devices from T2 with GPI output

You can control an external device with GPI output by specifying a trigger for an event in the playlist loaded to the P1 channel of T2.

1 Tap [Config.] on the touch screen LCD of T2.

2 Tap [GPI], and then tap [Output].

GPI – Output settings►P206

3 Tap [Previous] or [Next] and select a GPI output pin.

The number of the selected pin is displayed on the right of [GPI-Output].

4 Set [Name:] and [Active:] in the trigger setting, and select [Trigger] from the list of [Mode].

5 Tap [OK].

6 Load the playlist including the event to specify a trigger to the P1 channel.

7 Press the [P1] button.

8 Tap an event to set the trigger from the event list to select it.

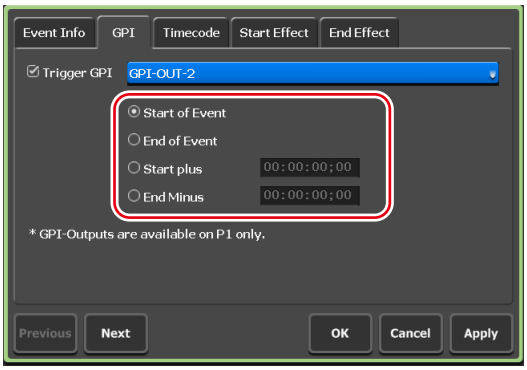
The selected event is displayed with a blue frame.

9 Tap [Menu], and then tap [Event Properties].

10 Tap the [GPI] tab.

11 Check [Trigger GPI] and select the name of the trigger setting set in step 4 from the list.

12 Select an action of the event to be the trigger.



- Select [Start of Event] to set the playback start of an event to be the trigger.
- Select [End of Event] to set the playback end of an event to be the trigger.
- Select [Start plus] to add a specified time to the time of playback start of an event and set it to be the trigger. Tap the timecode and enter the time to add.
- Select [End Minus] to subtract a specified time from the time of playback end of an event and set it to be the trigger. Tap the timecode and enter the time to subtract.

13 Tap [OK].

General settings

General – Hardware settings

You can set synchronization or audio level between an external device connected to your T2.

1 Tap [General], and then tap the [Hardware] tab in the setting screen.

2 Set each item and tap [OK].

Tap [Apply] to keep on making settings of other items.

Section 12

Appendix

This section includes the list of the keyboard shortcut in the workstation mode, input/output format, operation-ensured drivers for each device, AMP command, and BVW command.

Keyboard shortcut list in workstation mode

The following list shows the keyboard shortcuts.

Category	Action	Shortcut
[General]	[Select R1 channel]	[1]
	[Select P1 channel]	[2]
	[Select P2 channel]	[3]
	[Change focus to the folder list]	
	[Change focus to the content list]	
	[Change focus to the playlist of the selected channel]	
	[Switch between 1ch View and 2ch/3ch View]	
	[Change the content's tab]	
	[Show the Configuration screen]	
	[Show the content search screen]	
	[Lock/Unlock the selected channel]	
	[Turn On/Off the Loop in the selected channel (P1/P2)]	
	[Turn On/Off the EtoE in the selected channel (P1/P2)]	
	[Turn On/Off the Remote of the selected channel (P1/P2)]	
	[Turn the sync play mode On/Off]	
	[Eject the selected channel]	
	[Start Recording the selected channel (R1)]	[M]
	[Start playback in the selected channel]	[L]
	[Play reverse in the selected channel]	[J]
	[Play or pause the selected channel]	[Space]
	[Stop playing/recording in the selected channel]	[K]
	[Fast Forward (skip) in the selected channel]	[;]
	[Rewind (1 step back) in the selected channel]	[H]

Category	Action	Shortcut
	[Increase (1 step forward) the VAR speed in the selected channel]	[.]
	[Slower (1 step back) the VAR speed in the selected channel]	[,]
	[Increase (0.1 forward) the VAR speed in the selected channel]	
	[Slower (0.1 back) the VAR speed in the selected channel]	
	[Increase (0.01 forward) the VAR speed in the selected channel]	
	[Slower (0.01 back) the VAR speed in the selected channel]	
	[Move to top frame(previous event) of the selected channel]	[A]
	[Move to last frame(next event) of the selected channel]	[S]
	[Move to In point of the selected channel]	[Shift+I]
	[Move to Out point of the selected channel]	[Shift+O]
	[Move to the previous frame in the selected channel]	[<-]
	[Move to the next frame in the selected channel]	[->]
	[Set the In point of the selected channel]	[I]
	[Set the Out point of the selected channel]	[O]
	[Clear the In/Out points of the selected channel]	[Ctrl]+[I] [Ctrl]+[O]
	[Fast forward (0.01 forward) the current speed in the selected channel]	
	[Fast forward (0.1 forward) the current speed in the selected channel]	
	[Slow (0.01 back) the current speed in the selected channel]	
	[Slow (0.1 back) the current speed in the selected channel]	
	[Load the content(s) to the selected channel][*1]	
	[Load the content(s) to P1][*1]	
	[Load the content(s) to P2][*1]	
	[Cue up to the event within the playlist in the selected channel][*2]	
	[Cue up to the event within the playlist in the selected channel and pause][*2]	
	[Cue up to the event within the playlist in the selected channel and play][*2]	
	[Cue up to the event within the playlist P1][*2]	
	[Cue up to the event within the playlist in P1 and pause][*2]	
	[Cue up to the event within the playlist in P1 and play][*2]	

Category	Action	Shortcut
	[Cue up to the event within the playlist P2][*2]	
	[Cue up to the event within the playlist in P2 and pause][*2]	
	[Cue up to the event within the playlist in P2 and play][*2]	
[Contents List]	[Mount the selected item on the selected channel]	[Return]
	[Mount the selected item on the selected channel (with shifting the focus)]	
	[Mount the selected item on the selected channel and pause]	
	[Mount the selected item on the selected channel and pause (with shifting the focus)]	
	[Mount the selected item on the selected channel and play]	
	[Mount the selected item on the selected channel and play (with shifting the focus)]	
	[Mount the selected item on P1]	
	[Mount the selected item on P1 (with shifting the focus)]	
	[Mount and pause the selected item on P1]	
	[Mount and pause the selected item on P1 (with shifting the focus)]	
	[Mount and play the selected item on P1]	
	[Mount and play the selected item on P1 (with shifting the focus)]	
	[Mount the selected item on P2]	
	[Mount the selected item on P2 (with shifting the focus)]	
	[Mount and pause the selected item on P2]	
	[Mount and pause the selected item on P2 (with shifting the focus)]	
	[Mount and play the selected item on P2]	
	[Mount and play the selected item on P2 (with shifting the focus)]	
	[Scroll to top of selected item]	[Home]
	[Scroll to last selected item]	[End]
	[Delete selected item]	[Delete]
	[Copy selected item]	[Ctrl]+[C]
	[Cut selected item]	[Ctrl]+[X]
	[Paste item from the clipboard]	[Ctrl]+[V]
	[Show the rename dialog box for the selected item]	

Category	Action	Shortcut
	[Change the thumbnail frame color of the selected item to the default color]	
	[Change the thumbnail frame color of the selected item to the color 1]	
	[Change the thumbnail frame color of the selected item to the color 2]	
	[Change the thumbnail frame color of the selected item to the color 3]	
	[Change the thumbnail frame color of the selected item to the color 4]	
	[Change the thumbnail frame color of the selected item to the color 5]	
	[Show the film strip for the selected item]	
	[Show the properties for the selected item]	
[Playlist]	[Cue up to the selected event]	[Return]
	[Cue up and pause to the selected event]	
	[Cue up and play to the selected event]	
	[Delete the selected event]	[Delete]
	[Copy the selected event]	[Ctrl]+[C]
	[Paste the selected event]	[Ctrl]+[V]
	[Show the rename dialog box of the selected event]	
	[Set the fade in of the selected event to “none”]	
	[Set the fade in of the selected event to “from black”]	
	[Set the fade in of the selected event to “from white”]	
	[Set the fade out of the selected event to “none”]	
	[Set the fade out of the selected event to “from black”]	
	[Set the fade out of the selected event to “from white”]	
	[Set the end effect action to “none” in the selected event]	
	[Set the end effect action to “Pause (Show black frame)” in the selected event]	
	[Set the end effect action to “Pause (Show white frame)” in the selected event]	
	[Set the end effect action to “Pause (Show last frame)” in the selected event]	
	[Set the end effect action to “Pause (Show next event frame)” in the selected event]	

Category	Action	Shortcut
	[Set the end effect action to “Pause (Show EtoE)” in the selected event]	
	[Set the end effect action to “loop” in the selected event]	
	[Show the properties of selected event]	

*1 Can mount clips and playlists that start with 00_ to 99_.
*2 Can be set to the maximum of 100 events.

Operation-ensured drivers for each device

Operation-ensured driver versions for XDCAM/XDCAM EX

The operations of the following version of driver have been ensured on this product.

Product name	Version
XDCAM Browser	Ver. 2.1.0

Operation-ensured driver version for P2

The operations of the following version of driver have been ensured on this product.

Product name	Version
Memory Card Drive “P2 drive” AJ-PCD20	P2 Driver Ver. 2.1.8 (64 bit)

Input/output format list

Input format

○: Supported, △: Not all supported, ×: Not supported

Container	Video	Audio	Post-import format			
	Format	Format	Native	AVI (HQ) conversion	Rewrap MXF (OP-1a)	Unpack
AVI	Grass Valley HQ	Linear PCM	○	—	—	—
	Grass Valley HQX[*1]	Linear PCM	×	○	—	—
	DV	Linear PCM	×	○	—	—
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	Uncompress YUV					
	Uncompress RGB					
	Grass Valley Lossless		×	○		
MXF	Grass Valley HQ	Linear PCM	○	○	—	—
	Grass Valley HQX		×	○		
	AVC Intra 50	Linear PCM/ A-law	○	○		
	AVC Intra 100					
	D10					
	DV					
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	JPEG2000		×	○		
	MPEG2		○	○		
AVCHD	H.264/AVC	Dolby Digital (AC-3)/Linear PCM	○	○	—	—
P2	DV	Linear PCM (48kHz, 16 bit/24 bit)	○	○	○	—
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	AVC Intra 50					
	AVC Intra 100					
XDCAM (VFAM/FAM)	HD 422 (50Mb/s)	8 channels AES3/Linear PCM/A-law	○	○	—	—
	HD (35Mb/s)					
	HD (25Mb/s)					
	HD (18Mb/s)					
	DV					
	IMX					
XDCAM EX	HD (35Mb/s)	Linear PCM (48kHz, 16 bit)	○	○	—	—
	HD (25Mb/s)					
GF	DV	Linear PCM (48kHz, 16 bit/24 bit)	○	○	×	—
	DVCPRO25					
	DVCPRO50					
	MPEG2					
Windows Media	Windows Media Video	Windows Media Audio	×	○	—	—

Container	Video	Audio	Post-import format			
	Format	Format	Native	AVI (HQ) conversion	Rewrap MXF (OP-1a)	Unpack
QuickTime	DV	AAC/ Apple Lossless/ MP3/ADPCM/ A-law/U-law/ Linear PCM	×	○	—	—
	DVCPRO 25					
	DVCPRO 50					
	DVCPRO HD					
	H.264 (QuickTime Video (avc1))					
	ProRes422					
	ProRes422 HQ					
	ProRes422 Proxy					
	ProRes4444					
	JPEG2000					
	Animation					
	MPEG4					
	Photo JPEG					
	PNG					
	Uncompressed YUV					
	Sans					
	QuickTime Video (mp4v)					
	Uncompress 10 bit					
	Uncompress 10 bit YUV					
	QuickTime Video (rpza)					
	QuickTime Video (cvid)					
	Motion JPEG A					
	Motion JPEG B					
	Sorenson Video 3					
	Uncompressed RGB					
	Grass Valley HQ					
	Grass Valley HQX					
MPEG2	MPEG2	MPEG1 Audio Layer-2/ Dolby Digital (AC-3)/ Linear PCM	×	○	—	—
GXF	MPEG2	Linear PCM/A-law	×	—	○	—
	D10					
	DV					
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	AVC Intra 50					
	AVC Intra 100					
Still image		—	△	○	—	—
TWF			×	×	—	○

* When importing AVI(Grass Valley HQX), the file will be automatically converted to AVI(Grass Valley HQ).

Output format

Sources imported to T2 can be exported in "Post-export format" in the table.

○: Supported, △: Not all supported

Container	Video	Audio	Post-export format			
	Format	Format	AVI (HQ)	MXF (XDCAM)	Native (except AVI (HQ))	TWF
AVI	Grass Valley HQ	Linear PCM	○	○*1	—	○
MXF	Grass Valley HQ	Linear PCM	○	×	—	○
	AVC Intra 50	Linear PCM/ A-law	○	×	○	○
	AVC Intra 100					
	D10					
	DV					
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	MPEG2					
AVCHD	H.264/AVC	Dolby Digital (AC-3)/Linear PCM	×	×	○	○
P2	DV	Linear PCM (48kHz, 16 bit/ 24 bit)	×	×	○	○
	DVCPRO25					
	DVCPRO50					
	DVCPRO HD					
	AVC Intra 50					
	AVC Intra 100					
XDCAM	HD 422 (50Mb/s)	8 channels AES3/Linear PCM/A-law	×	×	○	○
	HD (35Mb/s)					
	HD (25Mb/s)					
	HD (18Mb/s)					
	DV					
	IMX					
XDCAM EX	HD (35Mb/s)	Linear PCM (48kHz, 16 bit)	×	×	○	○
	HD (25Mb/s)					
GF	DV	Linear PCM (48kHz, 16 bit/ 24 bit)	×	×	○	○
	DVCPRO25					
	DVCPRO50					
	MPEG2					
Still image		—	—	—	○	○
Playlist			○	○	—	○

* You can export Grass Valley HQ AVI files by converting them to the following formats.
- MXF format (XDCAM HD422) (1920 x 1080 59.94i/50i/29.97p/25p 50 Mbps)
- MXF format (XDCAM HD) (1440 x 1080 59.94i/50i/29.97p/25p/23.98p 25 Mbps)
- MXF format (XDCAM IMX) (720 x 486 59.94i, 720 x 576 50i)
- MXF format (XDCAM DV) (720 x 486 59.94i, 720 x 576 50i)

Supported video format and output port

Video format	Composite	SDI	DVI-I	DVI-I (YPbPr)	RGB
1920 x 1080 50/59.94p			CEA861D		
1920 x 1080 50/59.94i		292M	CEA861D	274M	
1920 x 1080 24p (PsF)		292M	CEA861D	274M	
1280 x 720 50/59.94p		292M	CEA861D	296M	
1280 x 720 24p		292M			
720 x 480 59.94i	170M	259M		EBU N10	
720 x 576 50i	BT.470	259M		EBU N10	
1280 x 1024 60p			DVI 1.0		DMT
1024 x 768 60p			DVI 1.0		DMT
800 x 600 60p			DVI 1.0		DMT
640 x 480 59.94p			DVI 1.0		DMT

Notes on T2 export

○: Supported, △: Not all supported, ×: Not supported

Import/Export media		Alpha presence		In/Out point specifying/ sub clip	Time-shift export	Chasing export of recording file	FTP export
Clip media type	Export media	No	Yes				
AVI	AVI	○	○	○	○	○[*6] (For FTP export: △[*7])	○
	MXF	○	△[*1]	○	○	○[*6]	○
	TWF (T2 format)	○	○	○	×	△[*7]	○
MXF	MXF	○	○	×[*3]	×	×	○
	TWF	○	○	×[*8]	×	×	○
XDCAM	XDCAM	○	○	×[*3]	×	—	×
	TWF (T2 format)	○	○	×[*8]	×	—	○
XDCAM EX	XDCAM EX	○	○	×[*3]	×	—	×
	TWF (T2 format)	○	○	×[*8]	×	—	○

Import/Export media		Alpha presence		In/Out point specifying/ sub clip	Time-shift export	Chasing export of recording file	FTP export
Clip media type	Export media	No	Yes				
P2	P2	○	○	×*3	×	—	×
	TWF (T2 format)	○	○	×*8	×	—	○
GF	GF	○	○	×*3	×	—	×
	TWF (T2 format)	○	○	×*8	×	—	○
AVCHD	AVCHD	○	○	×*3	×	—	○
	TWF (T2 format)	○	○	×*8	×	—	○
Still image	Still image	○*2	○*2	—	×	—	○
	TWF (T2 format)	○	○	—	×	—	○
Playlist	AVI	○	○	○*4	△*5	—	○
	MXF	○	○	○*4	×	—	○
	TWF (T2 format)	○	○	×*8	×	—	○

*1 Clips are converted to have no alpha.
*2 Original still image files are exported.
*3 Cutting out and exporting a clip between In and Out points are not supported. (The whole original media file is exported.)
*4 In/Out point settings of the event in the playlist is retained. No sub clip supported.
*5 An index file is exported at the last stage of creating an AVI file.
*6 Only valid when [Pause file transfers while recording or playing out.] is unchecked in the [Transfer] -> [Common] tab.
*7 Although the export task is added, the export process is automatically paused until the recording ends.
*8 When TWF files are imported to T2, In/Out point settings are restored.

AMP command list

The AMP commands available in T2 are listed in the following tables. The commands with gray-colored cells in the list are not supported by T2.
For detailed information on AMP commands, refer to the AMP Specification document.

NOTE
- The latency in the number of frames from the time the command such as Play or Stop is issued to the time the operation actually starts is not fixed. The video loaded on multiple T2 cannot be synchronized in the accurate frames by AMP commands.
- Clips that are not allowed to play or that contain playback restriction will not be loaded on T2.

Device management

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
01.06	Set Drop Frame Mode	○	○	○	○	○	[DF mode:] setting that is in [Miscellaneous] of [General] in the setting screen will be changed. Since [DF mode:] is a common setting for R1/P1/P2, the setting change will be applied to the other channels.
00.0C	Local Disable	No	○	○	○	○	Enabling and disabling of local control or remote control can be set for each channel.
0X.1D	Local Enable	No	○	○	○	○	Enabling and disabling of local control or remote control can be set for each channel.
00.11	Device Type Request	○	○	○	○	○	0x20 and 0x50 are returned corresponding to the device category and the model number, respectively.
20.04	Standby Off	No	No	No	No	No	
20.05	Standby On	No	No	No	No	No	
20.60	EE Off	No	No	○	No	No	
20.61	EE On	No	No	○	No	No	

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
21.62	Set Mute Mode	No	No	○	○	○	It takes several seconds from the time the command has been issued until the time the setting is applied.
A8.20	Set Device ID	○	○	○	○	○	
A0.21	Device ID Request	○	○	○	○	○	
A0.2C	Device Name Request	○	○	○	○	○	

Transport controls

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
2X.00	Stop	No	○	○	○	○	Specifying the timecode value on the command execution (event schedule) is not supported.
2X.01	Play	No	No	○	○	○	Specifying the timecode value on the command execution (event schedule) is not supported.
2X.02	Record	No	○	No	No	No	Specifying the timecode value on the command execution (event schedule) is supported only when the input type is LTC or VITC (SDI).
20.0F	Eject	No	○	○	○	○	
20.10	Fast Forward	No	No	○	No	No	Plays back the video in 32 times the normal play speed.
2X.11	Jog Forward	No	No	○	No	No[*1]	
2X.12	Variable Forward	No	No	○	No	No[*1]	

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
2X.13	Shuttle Forward	No	No	○	No	No[*1]	
20.20	Rewind	No	No	○	No	No	Plays back in reverse the video in 32 times the normal play speed.
2X.21	Jog Reverse	No	No	○	No	No[*1]	
2X.22	Variable Reverse	No	No	○	No	No[*1]	
2X.23	Shuttle Reverse	No	No	○	No	No[*1]	
2X.31	Cue Up With Data	No	No	○	○	○	A pseudo clip "<BLACK>" is not supported.
20.52	Tension Release	No	No	No	No	No	
44.05	User Bits Preset	No	No	No	No	No	Not supported on T2.
40.20	In Reset	No	No	○	○	○	
41.36	Timecode Mode Preset	No	○	No	No	No	For R1, the setting will be applied on the timecode that is saved when video is recorded. For LTC, the timecode of TC input is recorded, and for VITC, the timecode of SDI input is recorded.
40.40	Auto Mode Off	No	No	○	○	○	
40.41	Auto Mode On	No	No	○	○	○	
41.42	Set Loop Playback Mode	No	No	○	○	○	If you want to change the setting during the playback, send the command approximately four or more seconds before it comes to the position to set loop.

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
41.43	Set Widescreen Mode	No	○	No	No	No	
41.44	Set Stop Mode	No	No	○	○	○	If you want to change the setting during the playback, send the command approximately four or more seconds before it comes to the position to set stop.
40.45	Get Stop Mode	No	No	○	○	○	
60.0B	State Change Latency Request	No	No	No	No	No	Not supported on T2.
61.0C	Current Time Sense	○	○	○	○	○	Since obtaining User Bits is not supported, 00000000 will always be returned. The response is always the same value regardless of the type of LTC or VITC. If LTC source or VITC source has been specified, R1 input timecode is returned. Only 1:LTC, 4:Timer, 8:WindowsTime, and 40:LTC (Src) (R1 LTC input) are supported.
61.20	Status Sense*2	○	○	○	○	○	
AX.02	Record Cue Up With Data	No	○	No	No	No	Only specifying the clip name is available.

*1 Operates only when the specified speed is 0 (Stop).

*2 Supported status flag

Data0	Busy, Remote+Local/ Local
Data1	Play, Record, FFW, REW, Stop

Data2	Still, TapeDirection, Var, Shuttle
Data3	InPreset, OutPreset, AutoMode, FolderalreadyExist, InvalidFolderName, FolderDeletionFail, SourceMissing
Data4	EEOn, LoopPlayBack
Data9	FolderNotFound, OutPresetFail, PreviewInPreset, PreviewOutPreset
DataA	IDNotFound, MovieDeleteComplete, MovieDeleteFail
DataD	TapeTop, TapeEnd, LTC, Timer, VITC, TimeOfDay, DropFrame

Managing clips on the timeline

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
4X.14	In Preset	No	No	○	○	○	A pseudo clip "<BLACK>" is not supported.
4X.15	Out Preset	No	No	○	○	○	If you want to set an Out point during the playback, send the command approximately four or more seconds before it comes to the position to set the Out point.
4F.16	Append Preset	No	No	○	○	○	If you want to execute the command during the playback, send the command approximately four or more seconds before it comes to the end point of Preset Timeline.
4X.21	Out Reset	No	No	○	○	○	If you want to set an Out point during the playback, send the command approximately four or more seconds before it comes to the position to set the Out point.
A0.06	Preview In Reset	No	No	○	○	○	

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
AX.07	Preview Out Reset	No	No	○	○	○	If you want to set an Out point during the playback, send the command approximately four or more seconds before it comes to the position to set the Out point.
44.31	Pre-roll	No	No	No	No	No	Not supported on T2.
AX.04	Preview In Preset	No	No	○	○	○	If you want to execute the command during the playback, send the command approximately four or more seconds before it comes to the end point of Preset Timeline. A pseudo clip "<BLACK>" is not supported.
AX.05	Preview Out Preset	No	No	○	○	○	If you want to set an Out point during the playback, send the command approximately four or more seconds before it comes to the position to set the Out point.
AF.0A	Append Preview Preset	No	No	○	○	○	If you want to execute the command during the playback, send the command approximately four or more seconds before it comes to the end point of Preset Timeline.
A1.32	Set Ganging	No	No	○	○	No	Only switching on/off of sync mode by Instant Ganging is available on T2. (P1 only) Send Data 1: 0 Sync Off 6 Sync On (Channel 2 (bit 1) and Channel 3 (bit 2) ganged)
A0.33	Get Ganging	No	No	○	○	No	
AX.34	Set Ganging Information	No	No	No	No	No	Not supported on T2.

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
A0.35	Get Ganging Information	No	No	No	No	No	Not supported on T2.
AX.11	Erase Segment	No	No	No	No	No	Not supported on T2.
A0.16	ID Loaded Request	No	○	○	○	○	
AX.01	Auto Skip	No	No	○	○	○	

Managing stored clips

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
A0.26	ID Count Request	○	○	○	○	○	
AX.14	List First ID	○	○	○	○	○	
AX.15	List Next ID	○	○	○	○	○	
AX.18	ID Status Request	○	○	○	○	○	
A2.0E	Set Working Folder Request	○	○	○	○	○	
A0.0F	Get Working Folder Request	○	○	○	○	○	
A0.12	IDs Changed List Request	○	○	○	○	○	In and Out points are changed simultaneously, and you can not recognize which point has been changed.
AX.10	Erase ID	○	○	○	○	○	
A0.2A	List First Folder	○	○	○	○	○	

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
A0.2B	List Next Folder	○	○	○	○	○	
AX.1C	Total/ Available Storage Request	○	○	○	○	○	
A4.1D	Set Record Duration	No	○	No	No	No	Recording duration cannot be changed during the recording operation.
A2.31	Create Folder	○	○	○	○	○	
A2.28	Rename Folder	○	○	○	○	○	
A2.29	Delete Folder	○	○	○	○	○	
A2.25	ID Start Time Request	○	○	○	○	○	
A2.17	ID Duration Request	○	○	○	○	○	
AE.30	Replace Edit	No	No	No	No	No	Not supported on T2.
AX.2D	Stripe Timecode	○	○	○	○	○	In the properties for the clip and playlist, [Replace timecode media:] will be set to [Specify Start Time].
AX.2E	Set Mark In	○	○	○	○	○	This setting cannot be applied to playlists.
AX.2F	Set Mark Out	○	○	○	○	○	If you want to set an Out point during the playback, send the command approximately four or more seconds before it comes to the position to set the Out point. This setting cannot be applied to playlists.

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
AX.1A	Get Aspect Ratio Conversion Override	No	No	No	No	No	Not supported on T2.
A2.1B	Set Aspect Ratio Conversion Override	No	No	No	No	No	Not supported on T2.
AE.1E	Set Audio Gain	○	○	○	○	○	It takes several seconds from the time the command has been issued until the time the setting is applied on a loaded clip.
AA.1F	Get Audio Gain	○	○	○	○	○	
C0.28	Abort Transfer ID	○	○	○	○	○	
CX.27	Transfer ID Status Request	○	○	○	○	○	This setting will be applied only on the transfer that has started when Extended Transfer ID command is issued. (Not applied to the transfer that has started in the workstation mode/front panel mode of T2.) type 2 (data containing number of bytes transferred), 3 (data containing number of fields transferred) are not supported.
C2.26	Transfer ID	No	No	No	No	No	Not supported on T2.

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
C2.25	Extended Transfer ID	○	○	○	○	○	Setting of In and Out points is only supported for FFFFFFFF. (The range for the transfer cannot be set.) The setting for the transfer type will be disabled. The transfer type follows the settings in [Transfer] -> [AVI] or [Playlist] on the setting screen. The recommended transfer type is 0x03 (Profile), which is described in "K2_Protocol_ developers_Guide" as a sample of transfer via Grass Valley server. Set the clip/playlist name for the transfer source of export. Set the transfer destination as follows. • Network Drive:localhost/[n]:/ [dir]/[file name] For "n", specify the network drive allocated by [General] -> [Network-3] on the setting screen or the drive connected via USB. Example)localhost/z:/Export/Clip1 • FTP server:[address]/v:/[bin name]/[file name] For address, specify the address registered in [Hose Name/IP Address] in [FTP Export List] of [General] -> [FTP] on the setting screen. Example)169.254.138.3/v:/ Default/Clip1

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
C2.25	Extended Transfer ID	○	○	○	○	○	Set the transfer source of import as follows. • [n]:/[dir]/[file name] For "n", specify the network drive allocated by [General] -> [Network-3] or the drive connected via USB. Set the transfer destination as follows. V:/[bin name]/[clip name]
C2.29	Network Delete	No	No	No	No	No	Not supported on T2.
AX.19	New Copy	○	○	○	○	○	Deep copy is not supported. Setting In and Out points to playlists is not available. Only Shallow and Move are supported.
AX.22	Get Audio Track Labels	No	No	No	No	No	Not supported on T2.
AX.23	Set Audio Track Labels	No	No	No	No	No	Not supported on T2.
A0.36	Get Audio Input Tags	No	No	No	No	No	Not supported on T2.
AA.37	Set Audio Input Tags	No	No	No	No	No	Not supported on T2.
A0.38	Get Audio Output Tags	No	No	No	No	No	Not supported on T2.
AA.39	Set Audio Output Tags	No	No	No	No	No	Not supported on T2.
A2.3A	Get AFD Setting	No	No	No	No	No	Not supported on T2.
A2.3B	Set AFD Setting	No	No	No	No	No	Not supported on T2.

Clip data information

Command		Channel-less mode	R1	P1/P2	Sync mode	Fill/Key signal output mode	Supplementary note on T2 operation
AA.08	Set Clip Data	No	No	No	No	No	Not supported on T2.
AA.13	Clip Data Request	○	○	○	○	○	If Send Data 1 is 'C', Compression Type and Video Format are not supported. If Send Data 1 is 'E', this setting is not available.
A2.09	Get Thumbnail	○	○	○	○	○	A JPEG data with the size of 160 x 90 will be returned.

Flags

Flags	Command	Availability	Note
Status byte 0			
bit0:	Local	○	
bit1:	Remote+Local	○	
bit2:	Hard Error	○	
bit3:	General Error	○	
bit4:		—	
bit5:	Cassette Out	○	Always 0
bit6:		—	
bit7:	Busy	○	
Status byte 1			
bit0:	Play	○	
bit1:	Record	○	
bit2:	Fast Forward	○	
bit3:	Rewind	○	
bit4:	Eject	○	Always 0
bit5:	Stop	○	
bit6:	Tension Release	○	Always 0
bit7:	Standby On	○	Always 1
Status byte 2			
bit0:	Cue Complete	○	
bit1:	Still	○	
bit2:	Direction	○	
bit3:	Variable Play	○	
bit4:	Jog	○	
bit5:	Shuttle	○	
bit6:		—	
bit7:	Servo Lock	○	
Status byte 3			
bit0:	In Preset	○	
bit1:	Out Preset	○	
bit2:	Specified Folder Exist	○	
bit3:	Invalid Folder Name	○	
bit4:	Folder Deletion Failed	○	
bit5:	Jog Reject	○	
bit6:	Source Missing	○	
bit7:	Auto Mode	○	
Status byte 4			
bit0:	Preroll	○	
bit1:	Event Schedule Failed	○	
bit2:		—	
bit3:		—	
bit4:	Mute	○	
bit5:	Loop Playback Mode	○	
bit6:	EE On	○	
bit7:		—	
Status byte 9			
bit0:	Preview In Preset	○	
bit1:	Preview Out Preset	○	
bit2:	Folder Not Found	○	
bit3:	Disk Overflow	○	
bit4:	Metadata Not Found	No	
bit5:	Clips Dropped	○	
bit6:	Out Preset Failed	○	
bit7:	Overwrite Clip Name	○	
Status byte A			
bit0:	ID Not Found	○	
bit1:	Timecode Not Found	○	
bit2:	Transfer ID Complete	○	
bit3:	Transfer ID Abort Complete	○	
bit4:	Movie Delete Complete	○	
bit5:	Transfer ID Failed	○	
bit6:	Transfer ID Abort Failed	○	
bit7:	movie Delete Failed	○	
Status byte D			
bit0:	Time Of Day	○	
bit1:	Widescreen Mode	○	
bit2:	Drop Frame	○	
bit3:	VITC	○	
bit4:	Timer	○	
bit5:	LTC	○	
bit6:	Tape End	○	
bit7:	Tape Top	○	

BVW command list

The BVW commands available when controlling an external controller from T2 in the R1-VTR mode are listed in the following tables.
The commands with the "○" mark are available on the optional action as DEVICE, and if mentioned in the RETURN column, RETURN + DATA is returned, and if not mentioned, 10 01 ACK is returned.
The commands with the "△" mark return ACK or return RETURN as STATUS, but the action will not be performed.

Command			RETURN			
00	11	DEVICE TYPE REQUEST	12	11	DEVICE TYPE RETURN	○
20	00	STOP				○
20	01	PLAY				○
20	02	RECORD				○
20	04	STANDBY OFF				○
20	05	STANDBY ON				○
20	10	FAST FWD				○
2X	11	JOG FWD				○
2X	12	VAR FWD				○
2X	13	SHUTTLE FWD				○
2X	20	REWIND				○
2X	21	JOG REV				○
2X	22	VAR REV				○
2X	23	SHUTTLE REV				○
24	31	CUE UP WITH DATA				○
20	54	ANTI-CLOG TIMER DISABLE				△
20	55	ANTI-CLOG TIMER ENABLE				△
44	00	TIMER-1 PRESET				○
40	08	TIMER-1 RESET				○
41	36	TIMER MODE SELECT				○
61	0C	CURRENT TIME SENSE	74	00	TIMER-1 DATA	○
			74	04	LTC TIME DATA	○
			78	04	LTC TIME & UB DATA	○
			74	05	LTC UB DATA	○
			74	06	VITC TIME DATA	○
			78	06	VITC TIME & UB DATA	○
			74	07	VITC UB DATA	○
			70	0D	REQUEST TIME MISSING	○
61	20	STATUS SENSE	7X	20	STATUS DATA	○
60	2E	COMMAND SPEED SENSE	71	2E	COMMAND SPEED DATA	○
60	36	TIMER MODE SENSE	71	36	TIMER MODE DATA	○

* Start Delay value = 10 (*16 hexadecimal)

BVW list supporting remote mode

The BVW commands available when controlling T2 from an external controller in the R1-remote mode and P1/P2-remote mode are listed in the following table.

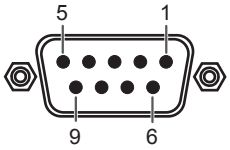
○: Supported, △: Not all supported, ×: Not supported

Command	R1	P1/P2
DEVICE TYPE REQUEST	○	○
STOP	○	○
PLAY, SYNC PLAY	×	○
RECORD	○	○
STANDBY OFF	○	○
STANDBY ON	×	○
FAST FWD	×	○
JOG FWD	×	○
VAR FWD	×	○
SHUTTLE FWD	×	○
REWIND	×	○
JOG REV	×	○
VAR REV	×	○
SHUTTLE REV	×	○
CUE UP WITH DATA	×	○
ANTI-CLOG TIMER DISABLE	△	△
ANTI-CLOG TIMER ENABLE	△	△
TIMER-1 PRESET	○	○
TIMER-1 RESET	○	○
TIMER MODE SELECT	○	○
CURRENT TIME SENSE	○*1	○
TIMER-1 DATA	○	○
LTC TIME DATA	○	○
LTC TIME & UB DATA	○	○
LTC UB DATA	○	○
VITC TIME DATA	○	○
VITC TIME & UB DATA	○	○
VITC UB DATA	○	○
REQUEST TIME MISSING	○	○
STATUS SENSE	○	○
COMMAND SPEED SENSE	○	○
TIMER MODE SENSE	○	○
REC	○	×

*1 If you query the timecode, R1 returns the timecode currently being input. For CURRENT TIME SENSE, the type of timecode to query can be specified (LTC/VITC). Whichever is specified, the timecode type set in T2 (the timecode type selected in [Select Timecode] in [R1] -> [Timecode & Remote] on the setting screen) is returned.

RS422 input/output pin

RS422 input/output pins are as follows.



R1 (R1-VTR mode)
D-Sub 9pin

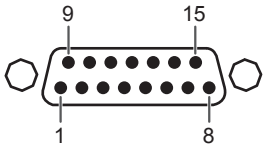
Pin	Signal
1	GND
2	RECEIVE–
3	TRANSMIT+
4	GND
5	NC
6	GND
7	RECEIVE+
8	TRANSMIT–
9	GND

R1/P1/P2 (remote mode)
D-Sub 9pin

Pin	Signal
1	GND
2	TRANSMIT–
3	RECEIVE+
4	GND
5	NC
6	GND
7	TRANSMIT+
8	RECEIVE–
9	GND

GPI input/output pin

GPI input/output pins are as follows.



Pin	Signal
1	Output 1
2	Output 2
3	Output 3
4	Output 4
5	Output 5
6	Output 6
7	NC
8	Common ground

Pin	Signal
9	Input 1
10	Input 2
11	Input 3
12	Input 4
13	Input 5
14	Input 6
15	NC
16	Common ground

NOTE • Only GPI Output 1 to 6 and Input 1 to 6 are available on T2. Pin 7and Pin 15 are not used.